CALL NO. 320

CONTRACT ID. 152300

BOONE COUNTY

FED/STATE PROJECT NUMBER FD04 SPP 008 0075 181-182

DESCRIPTION NEW COVINGTON-LEXINGTON-TENNESSEE STATE LINE ROAD (I-75)

WORK TYPE JPC PAVEMENT

PRIMARY COMPLETION DATE 10/1/2016

LETTING DATE: November 20,2015

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN STANDARD TIME November 20,2015. Bids will be publicly announced at 10:00 AM EASTERN STANDARD TIME.

NO PLANS ASSOCIATED WITH THIS PROJECT.

REQUIRED BID PROPOSAL GUARANTY: Not less than 5% of the total bid.

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SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 06

CONTRACT ID - 152300

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COUNTY - BOONE

PCN - MP00800751501
FD04 SPP 008 0075 181-182

NEW COVINGTON-LEXINGTON-TENNESSEE STATE LINE ROAD (I-75) (MP RAMP 0.108) SOUTH BOUND EXIT RAMP TO KY 18 FROM 0.008 MILES SOUTH OF I-75 EXTENDING SOUTH TO KY 18 (MP RAMP 0.345), A DISTANCE OF 0.24 MILES.JPC PAVEMENT SYP NO. 06--04505.0.

GEOGRAPHIC COORDINATES LATITUDE 38:00:15.00 LONGITUDE 84:39:13.00

COMPLETION DATE(S):

COMPLETED BY 10/01/2016	SPECIFIED COMPLETION DATE ALL ITEMS IN CONTRACT
0 HOURS	RAMP CLOSURE DURING PROHIBITED PERIODS

CONTRACT NOTES

PROPOSAL ADDENDA

All addenda to this proposal must be applied when calculating bid and certified in the bid packet submitted to the Kentucky Department of Highways. Failure to use the correct and most recent addenda may result in the bid being rejected.

BID SUBMITTAL

Bidder must use the Department's Expedite Bidding Program available on the Internet web site of the Department of Highways, Division of Construction Procurement. (www.transportation.ky.gov/construction-procurement)

The Bidder must download the bid file located on the Bid Express website (www.bidx.com) to prepare a bid packet for submission to the Department. The bidder must submit electronically using Bid Express.

JOINT VENTURE BIDDING

Joint venture bidding is permissible. All companies in the joint venture must be prequalified in one of the work types in the Qualifications for Bidders for the project. The bidders must get a vendor ID for the joint venture from the Division of Construction Procurement and register the joint venture as a bidder on the project. Also, the joint venture must obtain a digital ID from Bid Express to submit a bid. A joint bid bond of 5% may be submitted for both companies or each company may submit a separate bond of 5%.

UNDERGROUND FACILITY DAMAGE PROTECTION

The contractor is advised that the Underground Facility Damage Protection Act of 1994, became law January 1, 1995. It is the contractor's responsibility to determine the impact of the act regarding this project, and take all steps necessary to be in compliance with the provision of the act.

SPECIAL NOTE FOR COMPOSITE OFFSET BLOCKS

Contrary to the Standard Drawings (2012 edition) the Cabinet will allow 6" composite offset blocks in lieu of wooden offset blocks, except as specified on proprietary end treatments and crash cushions. The composite blocks shall be selected from the Cabinet's List of Approved Materials.

REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY

Pursuant to KRS 176.085(1)(b), an agency, department, office, or political subdivision of the Commonwealth of Kentucky shall not award a state contract to a person that is a foreign entity required by KRS 14A.9-010 to obtain a certificate of authority to transact business in the Commonwealth ("certificate") from the Secretary of State under KRS 14A.9-030 unless the person produces the certificate within fourteen (14) days of the bid or proposal opening. If the foreign entity is not required to obtain a certificate as provided in KRS 14A.9-010, the foreign entity should identify the applicable exception. Foreign entity is defined within KRS 14A.1-070.

For all foreign entities required to obtain a certificate of authority to transact business in the Commonwealth, if a copy of the certificate is not received by the contracting agency within the time frame identified above, the foreign entity's solicitation response shall be deemed non-responsive or the awarded contract shall be cancelled.

Businesses can register with the Secretary of State at https://secure.kentucky.gov/sos/ftbr/welcome.aspx .

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

Questions about projects during the advertisement should be submitted in writing to the Division of Construction Procurement. This may be done by fax (502) 564-7299 or email to kytc.projectquestions@ky.gov. The Department will attempt to answer all submitted questions. The Department reserves the right not to answer if the question is not pertinent or does not aid in clarifying the project intent.

The deadline for posting answers will be 3:00 pm Eastern Daylight Time, the day preceding the Letting. Questions may be submitted until this deadline with the understanding that the later a question is submitted, the less likely an answer will be able to be provided.

The questions and answers will be posted for each Letting under the heading "Questions & Answers" on the Construction Procurement website (www.transportation.ky.gov/contract). The answers provided shall be considered part of this Special Note and, in case of a discrepancy, will govern over all other bidding documents.

HARDWOOD REMOVAL RESTRICTIONS

The US Department of Agriculture has imposed a quarantine in Kentucky and several surrounding states, to prevent the spread of an invasive insect, the emerald ash borer.

Hardwood cut in conjunction with the project may not be removed from the state. Chipping or burning on site is the preferred method of disposal.

INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES

Identification of excess material sites and borrow sites shall be the responsibility of the Contractor. The Contractor shall be responsible for compliance with all applicable state and federal laws and may wish to consult with the US Fish and Wildlife Service to seek protection under Section 10 of the Endangered Species Act for these activities.

ACCESS TO RECORDS

The contractor, as defined in KRS 45A.030 (9) agrees that the contracting agency, the Finance and Administration Cabinet, the Auditor of Public Accounts, and the Legislative Research Commission, or their duly authorized representatives, shall have access to any books, documents, papers, records, or other evidence, which are directly pertinent to this contract for the purpose of financial audit or program review. Records and other prequalification information confidentially disclosed as part of the bid process shall not be deemed as directly pertinent to the contract and shall be exempt from disclosure as provided in KRS 61.878(1)(c). The contractor also recognizes that any books, documents, papers, records, or other evidence, received during a financial audit or program review shall be subject to the Kentucky Open Records Act, KRS 61.870 to 61.884.

In the event of a dispute between the contractor and the contracting agency, Attorney General, or the Auditor of Public Accounts over documents that are eligible for production and review, the Finance and Administration Cabinet shall review the dispute and issue a determination, in accordance with Secretary's Order 11-004. (See attachment)

10/29/12

Commonwealth of Kentucky
Finance and Administration Cabinet
OFFICE OF THE SECRETARY
Room 383, Capitol Annex
702 Capital Avenue
Frankfort, KY 40601-3462
(502) 564-4240
Fax (502) 564-6785

Steven L. Beshear
Governor

Lori H. Flanery
Secretary

SECRETARY'S ORDER 11-004

FINANCE AND ADMINISTRATION CABINET

Vendor Document Disclosure

WHEREAS, in order to promote accountability and transparency in governmental operations, the Finance and Administration Cabinet believes that a mechanism should be created which would provide for review and assistance to an Executive Branch agency if said agency cannot obtain access to documents that it deems necessary to conduct a review of the records of a private vendor that holds a contract to provide goods and/or services to the Commonwealth; and

WHEREAS, in order to promote accountability and transparency in governmental operations, the Finance and Administration Cabinet believes that a mechanism should be created which would provide for review and assistance to an Executive Branch agency if said agency cannot obtain access to documents that it deems necessary during the course of an audit, investigation or any other inquiry by an Executive Branch agency that involves the review of documents; and

WHEREAS, KRS 42.014 and KRS 12.270 authorizes the Secretary of the Finance and Administration Cabinet to establish the internal organization and assignment of functions which are not established by statute relating to the Finance and Administration Cabinet; further, KRS Chapter 45A.050 and 45A.230 authorizes the Secretary of the Finance and Administration Cabinet to procure, manage and control all supplies and services that are procured by the Commonwealth and to intervene in controversies among vendors and state agencies; and

NOW, THEREFORE, pursuant to the authority vested in me by KRS 42.014, KRS 12.270, KRS 45A.050, and 45A.230, I, Lori H. Flanery, Secretary of the Finance and Administration Cabinet, do hereby order and direct the following:

I. Upon the request of an Executive Branch agency, the Finance and Administration Cabinet ("FAC") shall formally review any dispute arising where the agency has requested documents from a private vendor that holds a state contract and the vendor has refused access to said documents under a claim that said documents are not directly pertinent or relevant to the agency's inquiry upon which the document request was predicated.

II. Upon the request of an Executive Branch agency, the FAC shall formally review any situation where the agency has requested documents that the agency deems necessary to

conduct audits, investigations or any other formal inquiry where a dispute has arisen as to what documents are necessary to conclude the inquiry.

III. Upon receipt of a request by a state agency pursuant to Sections I & II, the FAC shall consider the request from the Executive Branch agency and the position of the vendor or party opposing the disclosure of the documents, applying any and all relevant law to the facts and circumstances of the matter in controversy. After FAC's review is complete, FAC shall issue a Determination which sets out FAC's position as to what documents and/or records, if any, should be disclosed to the requesting agency. The Determination shall be issued within 30 days of receipt of the request from the agency. This time period may be extended for good cause.

IV. If the Determination concludes that documents are being wrongfully withheld by the private vendor or other party opposing the disclosure from the state agency, the private vendor shall immediately comply with the FAC's Determination. Should the private vendor or other party refuse to comply with FAC's Determination, then the FAC, in concert with the requesting agency, shall effectuate any and all options that it possesses to obtain the documents in question, including, but not limited to, jointly initiating an action in the appropriate court for relief.

V. Any provisions of any prior Order that conflicts with the provisions of this Order shall be deemed null and void.

SPECIAL NOTE FOR RECIPROCAL PREFERENCE

Reciprocal preference to be given by public agencies to resident bidders

By reference, KRS 45A.490 to 45A.494 are incorporated herein and in compliance regarding the bidders residency. Bidders who want to claim resident bidder status should complete the Affidavit for Claiming Resident Bidder Status along with their bid in the Expedite Bidding Program. Submittal of the Affidavit should be done along with the bid in Bid Express.

NATIONAL HIGHWAY

Be advised I-75, US 42, and KY 18 are on the NATIONAL HIGHWAY SYSTEM.

PROJECT TRAFFIC COORDINATOR (PTC)

Be advised this project is a significant project pursuant to section 112.03.12.

SURFACING AREAS

The Department estimates the ramp mainline surfacing width to vary 24-73 feet.

The Department estimates the total ramp mainline area to be surfaced to be 4,175 square yards.

The Department estimates the left ramp shoulder width to be 4 feet. The Department estimates the right ramp shoulder width to be 6 feet.

The Department estimates the total ramp shoulder area to be surfaced to be 1,390 square yards.

DGA BASE

Unless otherwise noted, the Department estimates the rate of application for DGA Base to be 115 lbs/sy per inch of depth.

DGA BASE FOR SHOULDERS

Unless otherwise noted, the Department estimates the rate of application for DGA Base for Shoulders to be 115 lbs/sy per inch of depth. The Department will not measure necessary grading and/or shaping of existing shoulders prior to placing of DGA Base, but shall be incidental to the Contract unit price per ton for DGA Base.

Accept payment at the Contract unit price per ton as full compensation for all labor, materials, equipment, and incidentals for grading and/or shaping of existing shoulders and furnishing, placing, and compacting the DGA Base.

INCIDENTAL SURFACING

The Department has included in the quantities of JPC Pavement and JPC Shoulders established in the proposal estimated quantities required for curve widening, ramp gores and tapers, and road and street approaches, as applicable. Pave these areas to the limits directed by the Engineer. The Department will not measure placing and compacting for separate payment but shall be incidental to the Contract unit price for the JPC Pavement and JPC Shoulders.

INITIAL TREATMENT

On tangents construct pavement slope from edge of pavement on ¼":1' slope or as directed by the Engineer. In curves, construct superelevation to match existing or as directed by the Engineer.

SPECIAL NOTE FOR "A+B" BIDDING AND DISINCENTIVE
FD04 SPP 008 0075 181-182

FIXED COMPLETION DATES AND "A+B" BIDDING

The procedure for evaluation of bids on this project involves an "A+B" concept:

The "A" component of the bid involves the dollar amount for all work to be performed under the Contract.

The "B" component involves the number of hours that the I-75/I-71 southbound exit ramp to KY 18 (Exit 181) will be closed.

PREPARATION OF BID PROPOSAL

The work is to be performed in a high traffic area. To reduce the disruption to the travelling public the contractor(s) shall bid the number of hours that the ramp will be under full closure. All work as identified in the proposal must be performed and completed during the ramp closure, except installation and removal of temporary signing, Inlaid Pavement Markers, asphalt seal coat, Flexible Delineators, and Final Dressing and Seeding. See Traffic Control Plan and Special Note for JPC Pavement and JPC Shoulders for additional phasing and construction requirements.

In addition to the requirements of Section 102 of the Standard Specifications, the bidder shall establish the total number of hours that the Southbound I-75/I-71 exit ramp to KY 18 (Exit 181) will be closed to complete the work in accordance with the plans and specifications and show these numbers in the bid proposal. For the purposes of bidding this contract, all bidders will bid the number of hours (B_R) for full ramp closure necessary to complete all work except that identified above. The B component will have an hourly dollar amount for bid comparison purposes. The value of each full ramp closure hour shall be the following:

B_R = $4,000

The Department will allow a maximum of 216 hours to be bid for this project.

PROPOSAL GUARANTY

Contrary to Section 102.09, it will not be necessary for the Proposal Guaranty to include an amount necessary to cover the product of hourly bid times the daily cost.

CONSIDERATION OF BIDS

Each bid submitted shall consist of two parts:

A The dollar amount for all work to be performed under the contract.
B_R The number of full ramp closure hours.

The lowest and best bid will be determined by the Department as the lowest combination of the two parts according to the following formula:

$$BID = A + [B_R]4{,}000$$

DISINCENTIVE FEES FOR RAMP CLOSURE BEYOND THE HOURS BID

If the ramp remains closed beyond the number of hours bid, disincentive fees will be charged based on the schedule below:

Table I. Disincentive Schedule for Ramp Closures

Time of Ramp Closure	Disincentive Fee ($/hr)
First Hour or Part of an Hour	$3,000
Successive Hours or Part of an Hour	$5,000

The disincentive fees for work beyond the number of hours bid will be charged in addition to any other disincentive fees or liquidated damages specified elsewhere in the Contract.

SPECIAL NOTE FOR JPC PAVEMENT & JPC SHOULDER
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I. DESCRIPTION

Except as specified herein, perform all work in accordance with the Department's 2012 Standard and Supplemental Specifications, Special Provisions and Special Notes, and Standard and Sepia Drawings, current editions, and as directed by the Engineer. Section references are to the Standard Specifications. Furnish all materials, equipment, labor, and incidentals for:

(1) Remove asphalt, concrete, and/or composite pavement; (2) Construct JPC Pavement and JPC Shoulders; (3) Remove and Replace Guardrail; (4) Maintain and Control Traffic; and (5) All other work specified as part of this contract.

II. MATERIALS AND EQUIPMENT

The Department will sample and test all materials according to the Department's sampling Manual. Make the materials available for sampling a sufficient time in advance of their use, to allow for the necessary time for testing, unless otherwise specified in these notes.

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Erosion Control. See Special Note for erosion Control.

C. Dense Graded Aggregate. Furnish Dense Graded Aggregate (DGA). Do not furnish Crushed Stone Base in lieu of DGA.

D. Signal System. Use Preformed Quadrapole Loops and Preformed Loop/Lead-In. See Special Notes for Preformed Quadrapole Loops for additional material requirements.

E. Jointed Plain Concrete Pavement and Shoulder. Use Class P Concrete conforming to Sections 501.02, 601.02, and 601.03, as applicable, except that the concrete must achieve 3,000 psi in accordance with Section IV.D of this note. Include dowels and load transfer assemblies in JPC Shoulder. Test concrete materials according to Section 601.03.03. The Engineer may allow pavement to be opened to traffic at less than 3,000 psi according to Section III.U of this note subject to the deductions described in Section IV.D of this note. At Contractor's request and at no additional cost to the Department, the Engineer may approve other high early strength rapid setting concrete; however, the Department will not permit chloride accelerators. Obtain the Engineer's approval prior to use. The Department will allow either central mixing or truck mixing. The Department will allow placing concrete with Slip Form Pavers or with Spreaders, Finishing Machines, and Floats operating on forms.

F. Load Transfer Assemblies, Dowel Bars, Sleeves, and Accessories. See Section 811.09 and the Standard Drawings..

G. Hook Bolts. See Sections 512.02 and 811.03.

H. Tie Bars. Use epoxy coated tie bars. See Sections 501.02.03 and the Standard Drawings.

I. Reinforcing Bar Adhesive. See Section 501.02.04.

J. Joint Materials. Use hot-poured elastic sealant, no alternates; see Section 807.03.01. Use filler according to Section 501.02.03(B).

K. Porous Underdrain. Use Geotextile Fabric Type II according to Section 843; coarse aggregate meeting the requirements of Section 805.08 (do not use natural sand); 6 inch Perforated and Non-Perforated Pipe; and Perforated Pipe Headwall.

L. Geotextile Fabric. For Subgrade Stabilization use Type IV Geotextile Fabric according to Section 843.

M. Guardrail. See Special Notes for Guardrail.

N. Inlaid Pavement Markers. See Special Note for Inlaid Pavement Markers.

III. CONSTRUCTION METHODS

Except as specified herein, perform all work in accordance with the Department's 2012 Standard and Supplemental Specifications, Special Provisions and Special Notes, and Standard and Sepia Drawings, current editions, and as directed by the Engineer.

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Roadway Lighting. Prior to ramp closure, the Department will inspect and test and make repairs, if needed, to verify the system is operational. Immediately prior to ramp closure, notify the engineer of any luminaires that are not operational. The Department will turn off the lighting on and adjacent to the ramp at the time of closure and turn on the system before re-opening the ramp to traffic. The Department will maintain all other lights within the interchange (including those on KY 18) continuously operational. If the roadway lighting system is damaged during construction, repair the system in like kind materials and design at no additional cost to the Department subject to inspection of KYTC District 6 traffic personnel.

C. Site Preparation. Be responsible for all site preparation, including but not limited to, incidental excavation, embankment, and backfilling; removal of pavements and shoulders; all obstructions or any other items; disposal of materials; sweeping and removal of debris; subgrade preparation and stabilization; shoulder preparation and restoration; temporary and permanent erosion and pollution control; final dressing, clean up, and seeding; and all incidentals. Limit clearing and grubbing to the absolute minimum required to reconstruct the pavement, shoulders, guardrail, and other items of work. Obtain the Engineer's prior approval before removing any trees. Perform all site preparation only as approved or directed by the Engineer.

D. Pavement Removal. Consider pavement removal locations and dimensions shown on the drawings and detail to be approximate only; if it is necessary to remove existing pavement closer than 6 feet to a transverse joint, remove the pavement 3 feet beyond that joint; the Engineer will determine exact locations and dimensions at the time of construction. In the removal operation, make a full depth saw cut transversely at the designated locations. To prevent damage to the stone base, do not allow the saw to penetrate more than ½ inch into the stone base. Remove existing asphalt, concrete, and/or composite pavement and shoulders and underlying stone base as necessary to provide for the specified thickness of the replacement DGA, JPC Pavement, and JPC Shoulders. Do not damage the base, shoulder, or pavement that is to be left in place. If damage does occur, repair as the Engineer directs at no additional cost to the Department and use an acceptable alternative method for the removal process.

E. Subgrade. After removing pavement and existing stone base, stabilize the subgrade according to Section 207.03 or as directed by the Engineer. If deemed necessary by the Engineer, use crushed Limestone Size No. 2, DGA, Type IV Geotextile Fabric, and porous underdrains to stabilize the existing subgrade or to replace unsuitable materials.

F. Porous Underdrain. Construct porous underdrains at locations determined by the Engineer with geotextile fabric and coarse aggregate encasing perforated pipe as directed by the Engineer in general accordance with Sections 704.03.01 and 704.03.02. Construct non-perforated outlet pipe and Perforated Pipe Headwall according to Standard Drawing RDP-010-08 and the Detail Sheet for Pavement Subsurface Drainage Outlet. Provide positive drainage at all times during and upon completion of construction.

G. JPC Pavement and JPC Shoulder Replacement. Obtain the Engineer's approval of proposed method of construction for ensuring and establishing a smooth profile. Construct DGA Base on the stabilized subgrade as shown on the typical section according to Section 302 and Section 501.03.07. Construct the replacement JPC Pavement and JPC Shoulders according to Section 501 and the Standard Drawings with a minimum depth of 11 inches; however, transition the finished grade to match adjacent pavement that is to remain in place; therefore, the actual thickness of the pavement may be greater than 11 inches in some areas. At the transverse joints with existing PCC

Pavement, install smooth load transfer dowel bars 18 inches long in the existing concrete using Epoxy Type IV on 12 inch centers beginning 12 inches from the edge of the slab to a depth equal to ½ the length of the bars. Drill holes 1/8 inch larger than the dowel diameter. Do not allow misalignment of holes exceeding ¼ inch in the vertical or oblique plane. Obtain the Engineer's approval of the drilling procedure. Install dowels and load transfer assemblies according to the Standard Drawings; however, include dowels and load transfer assemblies in the JPC Shoulders.

Mix, place, finish, texture, and cure the JPC Pavement and JPC Shoulder according to Section 501. Construct shoulder rumble strips according to Section 501.03.13 (J) and Standard Drawing RPN-001-06. Unless directed otherwise by the Engineer, construct pavement and shoulders with ¼":1' cross slope to the same line, grade, plan, profile, width, superelevation, and lane configuration as existing. Provide positive drainage at all times during and upon completion of construction.

H. Joints. Construct joints according to Section 501.03.17 and the Standard Drawings. Seal transverse and longitudinal joints as shown on the standard drawings according to Section 501.03.18 with hot-poured elastic joint sealant.

I. Signal System. Place Preformed Traffic Signal Loops on the prepared DGA Base before placing JPC Pavement and JPC Shoulders. Protect preformed loops and lead wires from each loop to the junction box during each phase of the construction sequence at no additional cost to the Department. See Special Notes for Preformed Quadrapole Loops.

J. Guardrail. See Special Notes for Guardrail.

K. Striping and Thermoplastic Pavement Markings. See traffic Control Plan.

L. Disposal of Waste. Dispose of all cuttings, debris, and other waste off the right-of-way at sites obtained by the Contractor at no additional cost to the Department. See Special Note for Waste and Borrow.

M. On-Site Inspection. Prior to submitting a bid, make a thorough inspection of the site and become thoroughly familiar with the existing conditions so that the work can be expeditiously performed after a contract is awarded. The Department will consider submission of a bid as evidence of this inspection having been made. The Department will not honor any claims resulting from site conditions.

N. Property Damage and Restoration. Be responsible for all damage to public and/or private property resulting from the work. Repair or replace all damaged roadway features in like kind materials and design at no additional cost to the Department. Repair or

replace damaged private property in like kind materials and design to the satisfaction of the owner.

O. Caution. Consider information shown on the drawings and in this proposal and the types and quantities of work listed to be approximate only, and not as an accurate or complete evaluation of the material and conditions to be encountered during construction. The bidder must draw his own conclusion as to the conditions encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation if the conditions encountered are not in accordance with the information shown.

P. Utility Clearance. Determine the location of all underground and overhead utilities and the Department's wiring for roadway lighting and signal systems prior to construction. It is not anticipated that the Department's and/or the utility's facilities will need to be relocated and/or adjusted; however, in the event that work does require relocation and/or adjustment, the utility companies will work concurrently with the Contractor while relocating their facilities.

Q. Final Dressing, Clean Up, and Seeding and Protection. After all work is completed, remove all waste and debris from the construction sites and restore disturbed shoulders outside the paved shoulder. Perform Class A final dressing on all disturbed areas. Sow disturbed earthen areas with Seed Mixture No. I and Seed Mixture No. II for an urban area according to the Erosion Control Plan.

R. Coordination of Work. Be advised that other projects may be in progress within or in the near vicinity of this project. Take into consideration that the traffic control of those projects may affect this project and the traffic control of this project may affect those projects. Coordinate the work on this project with the work of the other contractors. In case of a conflict, the Engineer will determine the relative priority to give to work phasing on the various projects.

S. Control. Perform all work under this contract under the absolute control of the Department of Highways. Obtain the Engineer's approval of all designs required to be furnished by the Contractor prior to incorporation into the work. The Department reserves the right to have other work performed by other contractors and its own forces and to permit public utility companies and others to do work during the construction within the limits of, or adjacent to, the project. Conduct operations and cooperate with such other parties so that interference with each other's work will be reduced to a minimum. By submitting bid, the Contractor agrees to make no claims against the Department for additional compensation due to delays or other conditions created by the operations of such other parties. Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of, or adjacent to, the project, the Engineer will decide as to the respective rights of the various parties involved in order to assure the completion of the work in general

harmony and in a satisfactory manner, and his decision shall be final and binding upon the Contractor.

T. Staking. See Special Note for Staking.

U. Opening to traffic. When JPC Pavement and JPC shoulders are completed and have reached a compressive strength of 3,000 psi or greater, open to traffic according to the phasing in the Traffic Control Plan. If the attained compressive strength of the JPC Pavement is between 2,250 psi and 2,999 psi at the end of the closure period allowed by the phasing in the Traffic Control Plan, obtain approval from the Engineer before opening to traffic. The Engineer will not allow opening to traffic if the compressive strength of the JPC Pavement is less than 2,250 psi. Maintain ramp closure until JPC Pavement reaches a minimum of 2,250 psi. Maintain shoulder closures if ramp is opened and the JPC shoulder has not attained compressive strength of 2,250 psi.

IV. METHOD OF MEASUREMENT

Except as provided herein, the Department will measure all work in accordance with the 2012 Standard and Supplemental Specifications, Special Provisions and Special Notes, and Standard and Sepia Drawings, current editions. The Department will measure only the bid items listed. Consider all other items required to complete the work as incidental to the listed items.

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Erosion Control. See Erosion Control Plan.

C. Site Preparation. Other than the bid items listed, the Department will measure Site Preparation as one (1) Lump Sum.

D. Remove Pavement. Contrary to Section 203.04, the Department will field measure removed pavement and shoulder pavement regardless of type in square yards. The Department will not measure removal of underlying base, but shall be incidental to Remove Pavement.

E. JPC Pavement and JPC Shoulders. Contrary to Sections 109.01.01 and 501.04.01, the Department will field measure JPC Pavement and JPC Shoulders in square yards. The Department will not measure reinforcing steel, tie bars, load transfer assemblies, dowels, and hook bolts; joint construction (including removal of concrete to accommodate a construction joint bulkhead); joint repair and joint sealing; forms, form pins, and additional work for drilling holes for form pins; initial texturing and texturing areas of the pavement that have been corrected by grinding; fly ash, Type IP cement, Type III cement, additional Type I cement, or other approved admixtures for high early

strength; formed or ground rumbles strips; and all other items necessary to construct the pavement and shoulders for payment and will consider them incidental to the applicable item of work. Core the JPC Pavement and JPC Shoulder according to Section 501.03.21. The Department will measure pavement and shoulder thickness tolerance according to Section 501.04.06.

F. Signal Loops. See Special Notes for Preformed Quadrapole Loops.

G. Guardrail. See Special Notes For Guardrail.

H. Asphalt Milling and Texturing. If the Contractor elects to remove asphalt pavement by milling, the Department will not measure Asphalt Milling and Texturing for separate payment, but shall be incidental to Remove Pavement.

I. Geotextile Fabric. The Department will measure Geotextile Fabric Type IV used for subgrade stabilization in Square Yards; however, the Department will not measure laps, cut-offs, and waste. The Department will not measure geotextile fabric used to construct Porous Underdrains, but shall be incidental to Porous Underdrain.

J. Base and Subgrade Stabilization. Other than the bid items listed, the Department will not measure base and subgrade stabilization, but shall be incidental to other items of work, as applicable.

K. Restoration. The Department will not measure restoration items, but shall be incidental to the other items of work as applicable.

L. Porous Underdrain. The Department will measure Porous Underdrain in linear feet along the centerline of the Underdrain. The Department will measure Perforated and Non-Perforated pipe according to Section 704.04.02. The Department will measure Perforated Pipe Headwalls in individual units Each. The Department will not measure coarse aggregate or geotextile fabric used in the underdrain for separate payment but shall be incidental to Porous Underdrain. Contrary to Section 704.01.01, the Department will not measure additional excavation for Porous Underdrain regardless of depth, but shall be incidental to Porous Underdrain.

M. Staking. See Section 201.04.01.

IV. BASIS OF PAYMENT

The Department will make payment only for the bid items listed. All other items required to complete the construction shall be incidental to the bid items listed.

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Erosion Control. See Erosion Control Plan.

C. Site Preparation. Accept payment at the contract Lump Sum unit price as full compensation for incidental excavation, embankment, and backfilling; removal of all obstructions or any other items; disposal of materials; sweeping and removal of debris; subgrade preparation and stabilization; shoulder preparation and restoration; clean up and final dressing; and all incidentals.

D. Remove Pavement. Accept payment at the contract unit prices per square yard as full compensation for saw cutting and removing existing pavement (asphalt, concrete, and/or composite) regardless of type; and disposing of waste and debris. In addition to the adjusted payment for

E. JPC Pavement and JPC Shoulders. See Section 501.05. The Department will adjust the Contract unit prices for JPC Pavement and JPC Shoulders according to the thickness deficiency schedule in Section 501.05. If the ramp is opened to traffic before the concrete reaches compressive strength of 3,000 psi, in addition to the adjustment for thickness deficiency, the Department will make payment for JPC Pavement and JPC Shoulders according to the following payment schedule based on the compressive strength (the cylinders for payment will be tested two hours prior the scheduled opening of traffic):

3,000 psi and up	100% payment
2,750 to 3000 psi	75% payment
2,500 to 2750 psi	50% payment
2,250 to 2500 psi	25% payment
Below 2,250 psi	10% payment

F. Signal System. See Special Notes for Preformed Quadrapole Loops.

G. Guardrail. See Special Notes for Guardrail.

G. Porous Underdrain. Accept payment at the Contract unit prices per linear foot of Porous Underdrain, Perforated, and Non-Perforated Pipe, and at the contract unit price Each for Perforated Pipe Headwall, as full compensation for all labor, equipment, materials, and incidentals for constructing Porous Underdrain.

H. Staking. See Section 201.04.02

SPECIAL NOTE FOR STAKING
FE01 SPP 008 0075 181-182

In addition to the requirements of Section 201, perform the following:

1. Contrary to Section 201.03.01, perform items 1-3 usually performed by the Engineer; and
2. Field survey the existing pavement in order to establish the existing cross slopes, super elevation, transitions, and profile. Eliminate irregularities in the existing pavement by determining a smooth line and grade of the new JPC pavement to provide the best rideability possible; and
3. Verify intersection elevations, lane profiles, curvature and alignment, and prepare a Drainage Development Worksheet to provide for positive drainage upon completion of construction; and
4. Prior to incorporating into the work, obtain the Engineers approval of all designs and revisions to be provided by the Contractor; and
5. Produce and furnish to the Engineer "As Built" plans; and
6. Perform any and all other staking operations required to control and construct the work.

SPECIAL NOTE FOR PREFORMED QUADRAPOLE LOOPS
FD04 SPP 008 0075 181-182

I. DESCRIPTION.

Except as provided herein, install preformed loops accordance with the Department's 2012 Standard Specifications, Standard and Sepia Drawings, and Special Notes and Special Provisions, current editions. Article references are to the Standard Specifications. Furnish all materials, equipment, labor, and incidentals for placement of Preformed Quadrapole Loops, Preformed Loop/Lead-In, Conduit, junction box, wiring, and connection to the existing signal system.

II. MATERIALS.

Except as provided herein, provide materials according to Section 723.02 and Section 835.

All preformed loop wire shall be 16-gauge THWN stranded copper, single conductor in a 2-4-2 configuration for Quadrapole as shown on the Quadrapole Loop detail. The loop and home run shall be housed in a class A oil resistant heavy-duty reinforced rubber hose with a 250-PSI internal pressure rating. Hose for the loop and home run assembly shall be one continuous piece. The 3/8" I.D. (5/8" O.D.) hose shall be factory assembled. Preformed loops and home runs shall be pre-wired. The loop configurations and homerun lengths shall be assembled for the specific application.

Hose tee connections shall be high temperature synthetic rubber. The tee shall be of proper size to attach directly to the hose, minimizing the glue joints. The tee shall have the same flexible properties as the hose to insure that the whole assembly can conform to pavement movement and shifting without cracking or breaking.

III. CONSTRUCTION.

Except as specified herein, perform all work in accordance with the Department's 2012 Standard and Supplemental Specifications, Special Provisions and Special Notes, and Standard and Sepia Drawings, current editions, and as directed by the Engineer. Except as provided herein, construct Preformed Quadrapole Loops in accordance with applicable portions of Section 723.

The electrical contractor shall coordinate with the general contractor and inspector to ensure the loops are located installed prior to placing the JPC Pavement and JPC Shoulders, and operational prior to opening JPC Pavement to traffic.

The preformed loop dimension shall be 6' x 30' Quadrapole. Center each loop in the lane such that its sides are parallel and perpendicular to the direction of traffic. Hose for the preformed

loops and home run assembly shall be one continuous piece and shall be extended splice-free to the controller or junction box. Lay the preformed loop wire and home run lead-in on the compacted aggregate prior to pouring the new concrete. There shall be a minimum of six feet between loops in adjacent lanes for 12 foot wide lanes. Preformed loop cables extended to junction boxes by means of preformed home run cables shall be spliced into loop lead-in cable at the boxes. Loop lead-in cable shall be extended splice-free from the junction box to controller.

Each Contractor submitting a bid for this work shall make a thorough inspection of the site prior to submitting his bid and shall thoroughly familiarize himself with existing conditions so that the work can be expeditiously performed after a Contract is awarded. Submission of a bid will be considered evidence of this inspection having been made. Any claims resulting from site conditions will not be honored by the Department.

Information provided in this proposal and the types and quantities of work listed are not to be taken as an accurate or complete evaluation of the material and conditions to be encountered during construction. The bidder must draw his own conclusion as to the conditions encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation if the conditions encountered are not in accordance with the information shown.

It is not anticipated that utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities.

IV. MEASUREMENT

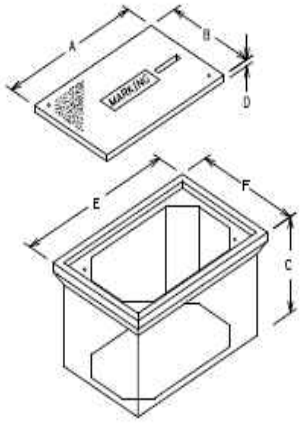
Except as provided herein, the Department will measure all work in accordance with the 2012 Standard and Supplemental Specifications, Special Provisions and Special Notes, and Standard and Sepia Drawings, current editions. The Department will measure only the bid items listed. Consider all other items required to complete the work as incidental to the listed items. Except as provided herein see section 723.04

The Department will measure Preformed Quadrapole Loops and Preformed Loop Lead-In in linear feet. Other than the listed items, the Department will not measure connections and fittings required for a full and complete installation of the loops, but shall be incidental to these items.

V. PAYMENT

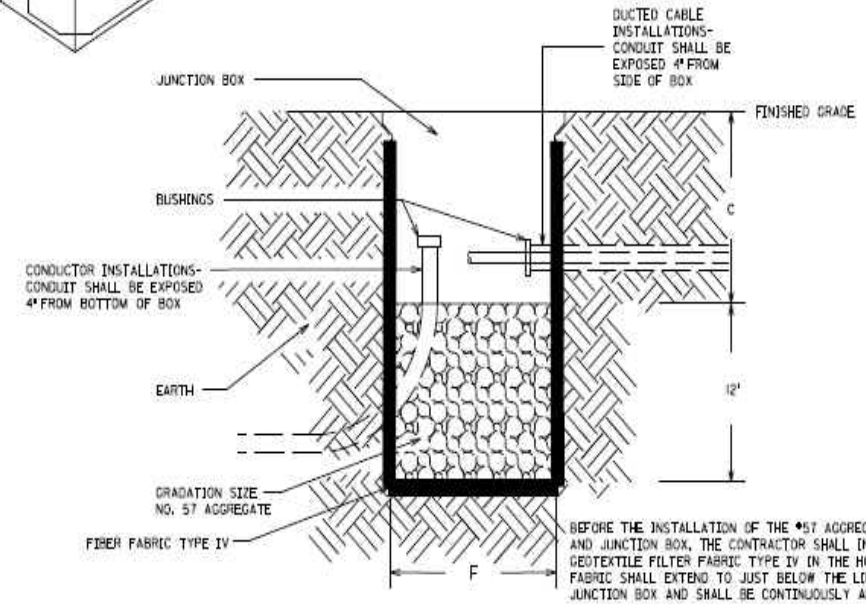
The Department will make payment only for the bid items listed. Consider all other items required to complete the construction to be incidental to the bid items listed. The Department will make payment for completed and accepted quantities according to Section 723.05 for the following:

Code	Pay Item	Pay Unit
4792	Conduit 1"	Linear Foot
4811	Junction Box Type B	Each
4820	Trenching and Backfilling	Linear Foot
4850	Cable-No. 14/1 Pair	Linear Foot
4894	Preformed Loop Lead-In	Linear Foot
20453ES835	Preformed Quadrapole Loops	Linear Foot



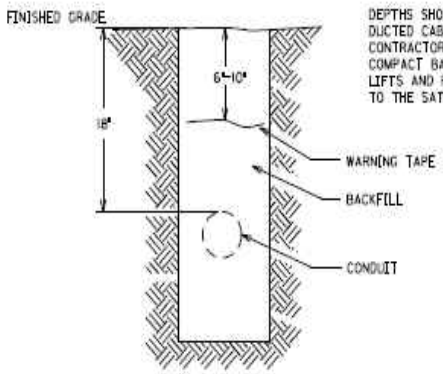
JUNCTION BOX DIMENSIONS (NOMINAL)						
	A	B	C	D	E	F
TYPE A	23"	14"	27"	2"	25"	15"
TYPE B	18"	11"	12"	1¾" *	20"	13"
TYPE C	36"	24"	30"	3"	38"	26"

* MINIMUM
NOTE: STACKABLE BOXES ARE PERMITTED



JUNCTION BOX

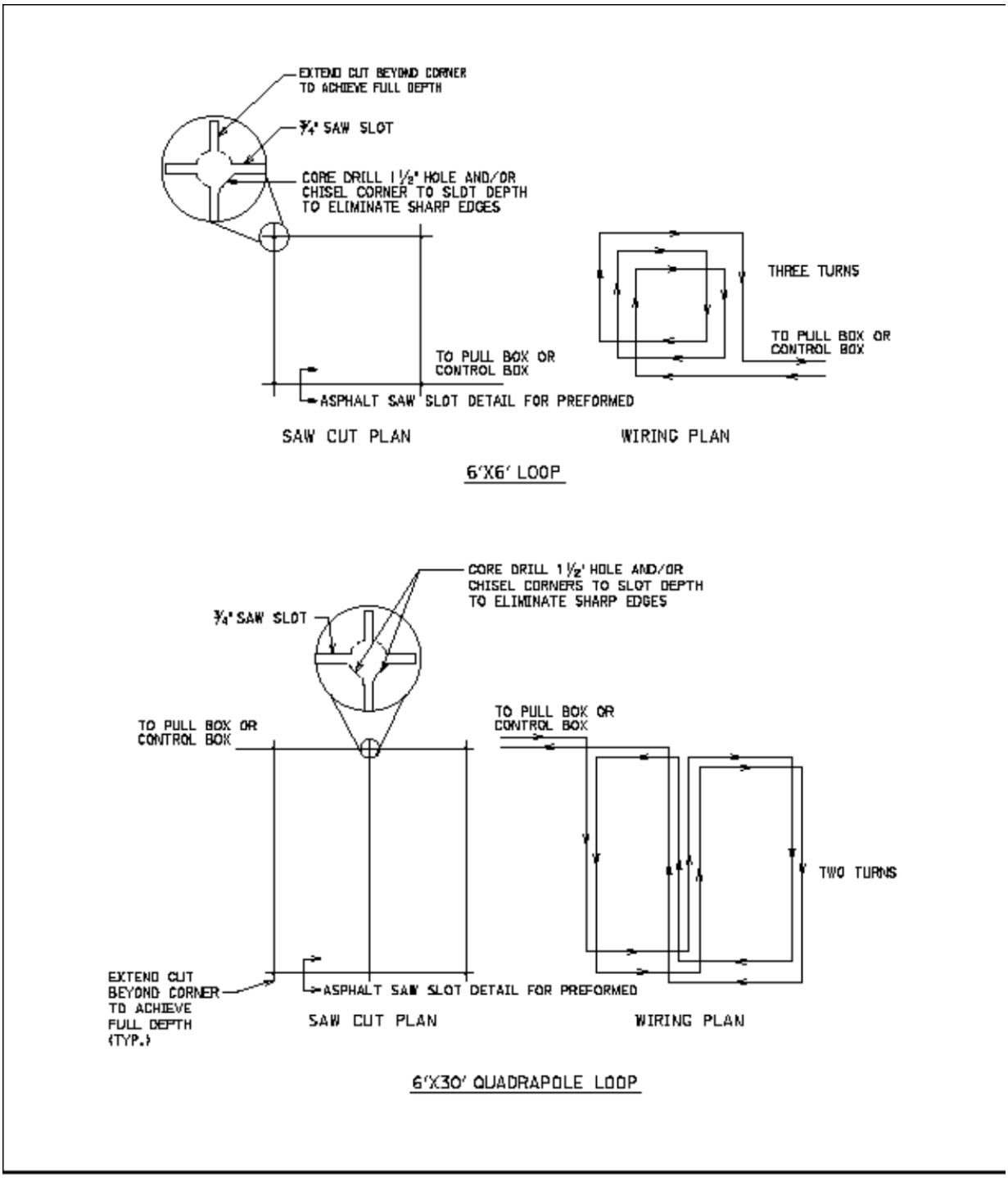
BEFORE THE INSTALLATION OF THE #57 AGGREGATE AND JUNCTION BOX, THE CONTRACTOR SHALL INSTALL GEOTEXTILE FILTER FABRIC TYPE IV IN THE HOLE. THE FABRIC SHALL EXTEND TO JUST BELOW THE LIP OF THE JUNCTION BOX AND SHALL BE CONTINUOUSLY ADHERED TO THE EXTERIOR OF THE BOX WITH ADHESIVE. ANY LOCATIONS WHERE CONDUITS ENTER THE BOX, THE FABRIC SHALL BE "X CUT" ONLY AS MUCH AS NECESSARY TO ALLOW PASSAGE OF EACH INDIVIDUAL CONDUIT THROUGH THE FABRIC. THE FABRIC SHALL BE INCIDENTAL TO BID ITEMS 481, 2039NS835, OR 2039ZNS835.



DEPTHS SHOWN FOR CONDUIT AND DUCTED CABLE ARE MINIMUMS. CONTRACTOR SHALL PLACE AND COMPACT BACKFILL IN 9" MAXIMUM LIFTS AND RETORE DISTURBED AREA TO THE SATISFACTION OF THE ENGINEER.

CONDUIT AND WARNING TAPE TRENCH

Preformed Quadrapole Loops
FD04 SPP 008 0075 181-182
Page **5** of **6**



Preformed Quadrapole Loops
FD04 SPP 008 0075 181-182
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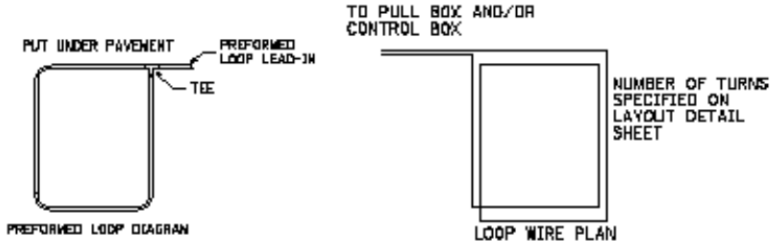
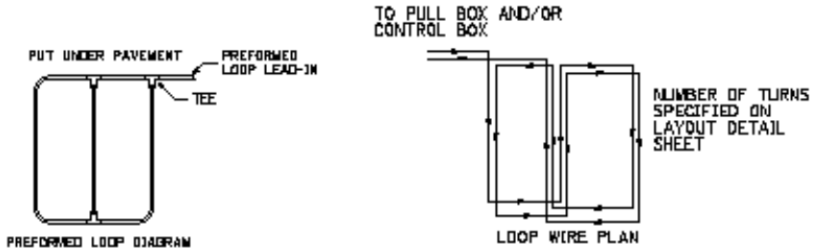
PREFORMED LOOP LEAD-IN SHALL BE TWISTED WITH THREE TO FIVE TURNS PER FOOT UNTIL TERMINATED AT FIELD CONNECTIONS IN THE CABINET OR CONNECTED TO SHIELDED CABLE.



STANDARD PREFORMED LOOP

*ALL LOOPS THAT ARE NOT QUADRAPOLES SHALL BE STANDARD AND HAVE 3 TURNS

PREFORMED LOOP LEAD-IN SHALL BE TWISTED WITH THREE TO FIVE TURNS PER FOOT UNTIL TERMINATED AT FIELD CONNECTIONS IN THE CABINET OR CONNECTED TO SHIELDED CABLE.



QUADRAPOLE PREFORMED LOOP

*ALL 6'x30' LOOPS SHALL BE QUADRAPOLE AND SHALL HAVE A 2-4-2 CONFIGURATION

SPECIAL NOTE FOR INLAID PAVEMENT MARKERS
FD04 SPP 008 0075 1814-182

I. DESCRIPTION

Except as provided herein, perform all work in accordance with the Department's Standard and Supplemental Specifications and applicable Standard and Sepia Drawings, current editions. Article references are to the Standard Specifications. This work shall consist of:

(1) Maintain and Control Traffic; and (2) Furnish and install Inlaid Pavement Markers (IPMs) in recessed grooves; and (3) Any other work as specified by these notes and the Contract.

II. MATERIALS

The Department will sample all materials in accordance with the Department's Sampling Manual. Make the materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing unless otherwise specified in these Notes.

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Markers. Provide reflective lenses with depth control breakaway positioning tabs. Before furnishing the markers, provide to the Engineer the manufacturer's current recommendations for adhesives and installation procedures. Use one brand and design throughout the project. Use markers meeting the specifications in the table below.

SPECIFICATIONS FOR HOUSING AND REFLECTOR	
Material:	Polycarbonate Plastic
Weight:	Housing 2.00 oz.
	Reflector 2.00oz.
Housing Size:	5.00" x 3.00" x 0.70" high
Specific Intensity of Reflectivity at 0.2° Observation Angle	
White:	3.0 at 0°entrance angle
	1.2 at 20°entrance angle
Yellow:	60% of white values
Red:	25% of white values

C. Adhesives. Use adhesives that conform to the manufacturer's recommendations.

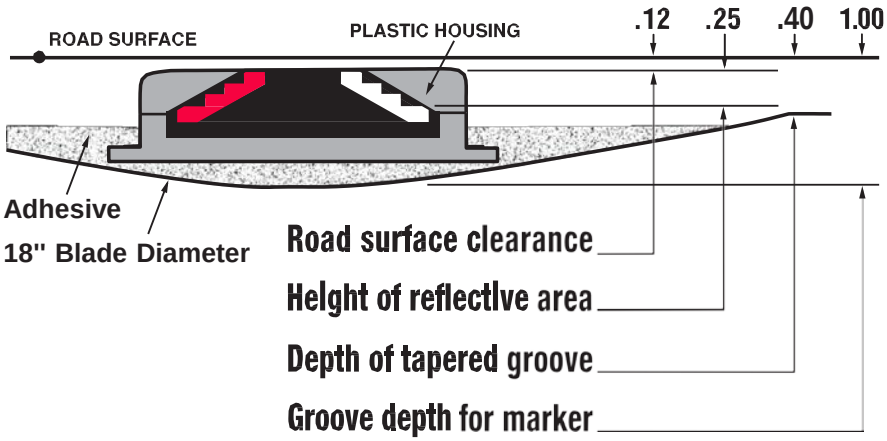
III. CONSTRUCTION

A. Experimental Evaluation. The University of Kentucky Transportation Center will be evaluating this installation of IPMs. Notify the Engineer a minimum of 14 calendar days prior to beginning work. The Engineer will coordinate the University's activities with the Contractor's work.

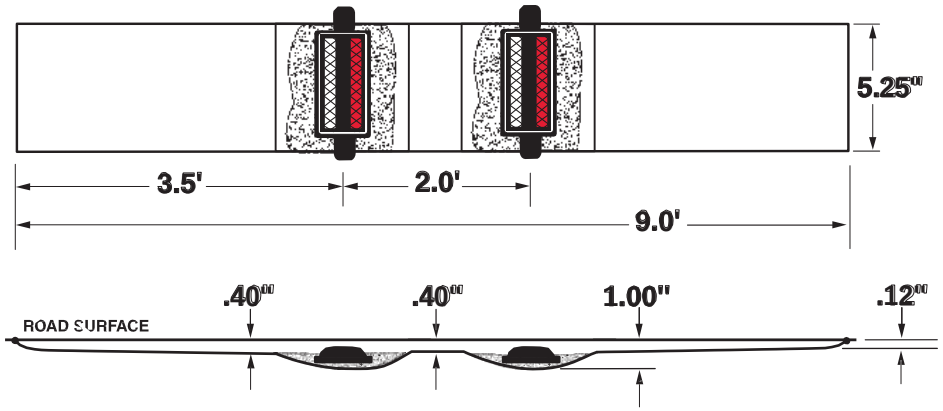
B. Maintain and Control Traffic. See Traffic Control Plan.

C. Installation. Install IPMs in recessed grooves cut into the final course of asphalt pavement according to the manufacturer's recommendations. Do not cut the grooves until the pavement has cured sufficiently to prevent tearing or raveling. Cut installation grooves using diamond blades on saws that accurately control groove dimensions. Remove all dirt, grease, oil, loose or unsound layers, and any other material from the marker area which would reduce the bond of the adhesive. Maintain pavement surfaces in a clean condition until placing markers.

Prepare the pavement surfaces, and install the markers in the recessed groove according to the drawing below. Use an approved snowplowable epoxy adhesive. Ensure that the adhesive bed area is equal to the bottom area of the marker, and apply adhesive in sufficient quantity to force excess out around the entire perimeter of the marker. Use materials, equipment, and construction procedures that ensure proper adhesion of the markers to the pavement surface according to the manufacturer's recommendations. Remove all excess adhesive from in front of the reflective faces. If any adhesive or foreign matter cannot be removed from the reflective faces, or if any marker fails to properly adhere to the pavement surface, remove and replace the marker at no additional cost to the Department.



D. Location and Spacing. Install the markers in the pattern for high reflectivity with two (2) IPMs per groove. Locate and space markers as shown in the current standard drawings or sepias (note: use Inlaid Pavement Markers wherever Type V Pavement Markers are called for). Do not install markers on bridge decks. Do not install a marker on top of a pavement joint or crack. Offset the recessed groove a minimum of 2 inches from any longitudinal pavement joint or crack and at least one inch from the painted stripe, ensuring that the finished line of markers is straight with minimal lateral deviation. Give preference to maintaining the 2-inch offset between recessed groove and joint as opposed to keeping the line of markers straight.



Place inlaid markers as much in line with existing pavement striping as possible. Place markers installed along an edge line or channelizing line so that the near edge of the plastic housing is no more than one inch from the near edge of the line. Place markers installed along a lane line between and in line with the dashes. Do not place markers over the lines except where the lines deviate visibly from their correct alignment, and then only after obtaining the Engineer's prior approval of the location.

If conflicts between recessed groove placement in relation to pavement joint and striping cannot be resolved, obtain the Engineer's approval to eliminate the marker or revise the alignment.

E. Disposal of Waste. Dispose of all removed asphalt pavement, debris, and other waste at sites off the right of way obtained by the Contractor at no additional cost to the Department. See Special Note for waste and Borrow.

F. Restoration. Be responsible for all damage to public and/or private property resulting from the work. Restore all damaged features in like kind materials and design at no additional cost to the Department.

G. On-Site Inspection. Make a thorough inspection of the site prior to submitting a bid and be thoroughly familiar with existing conditions so that the work can be expeditiously

performed after a contract is awarded. The Department will consider submission of a bid as evidence of this inspection having been made and will not honor any claims for money or grant Contract time extensions resulting from site conditions.

H. Caution. Do not take information shown on the drawings and in this proposal and the types and quantities of work listed as an accurate or complete evaluation of the material and conditions to be encountered during construction, but consider the types and quantities of work listed as approximate only. The bidder must draw his own conclusion as to the conditions encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation or extension of Contract time if the conditions encountered are not in accordance with the information shown.

IV. MEASUREMENT

A. Maintain and Control Traffic. See Traffic Control Plan.

B. "INLAID PAYMENT MARKER" shall be measured as each. One (1) installation of "INLAID PAVEMENT MARKER" will consist of grooving the pavement, removing asphalt cuttings and debris, preheating pavement to remove moisture, adhesives, and installation of two (2) markers with all lenses in accordance with this note.

Note: Each pay item of Inlaid Pavement Marker will require two markers.

V. PAYMENT

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Inlaid Pavement Markers. The Department will make payment for the completed and accepted quantity of completely installed "INLAID PAVEMENT MARKERS" at the Contract unit price, each. Accept payment as full compensation for all labor, equipment, materials, and incidentals to accomplish this work to the satisfaction of the Engineer. A system of one (1) groove and two (2) markers shall be paid as one "INLAID PAVEMENT MARKER".

SPECIAL NOTE FOR LIQUIDATED DAMAGES
117GR15P047-FE01

In addition to the requirements of Section 108.09, the Department will assess Liquidated Damages in the amount of $4,000 per hour for each hour or part of an hour, for each road, that I-75, US 42, or KY 18 has a lane closure in place during periods prohibited by the Traffic Control Plan.

The Department will assess Liquidated Damages in the amount specified in Section 108.09 for each calendar day or part of a calendar day that any item of work remains uncompleted after October 1, 2016.

Contrary to Sections 108.07.04 and 108.09, the Department will assess Liquidated Damages as specified above for the months of December through March, regardless of whether seasonal or temperature limitations prohibit the Contractor from performing work on the controlling item or operation.

The Department will assess these Liquidated Damages in addition to any other disincentive fees or liquidated damages specified elsewhere in the Contract.

The Department will apply all liquidated damages accumulatively.

All other applicable portions of Section 108 apply.

SPECIAL PROVISION FOR WASTE AND BORROW SITES

Obtain U.S. Army Corps of Engineer's approval before utilizing a waste or borrow site that involves "Waters of the United States". The Corps of Engineers defines "Waters of the United States" as perennial or intermittent streams, ponds or wetlands. The Corps of Engineers also considers ephemeral streams, typically dry except during rainfall but having a defined drainage channel, to be jurisdictional waters. Direct questions concerning any potential impacts to "Waters of the United States" to the attention of the appropriate District Office for the Corps of Engineers for a determination prior to disturbance. Be responsible for any fees associated with obtaining approval for waste and borrow sites from the U.S. Army Corps of Engineer or other appropriate regulatory agencies.

1-296 Waste & Borrow Sites
01/02/2012

SPECIAL NOTE FOR ADVANCED REGIONAL TRAFFIC INTERACTIVE MANAGEMENT INFORMATION SYSTEM (ARTIMIS)
FD04 SPP 008 0075 181-182

Be advised, buried fiber optic cable may be installed within or in the vicinity of the construction limits of this project as part of the Advanced Regional Traffic Interactive Management Information System (ARTIMIS). Notify the Engineer in writing, a minimum of (2) two weeks, prior to beginning any work.

The Engineer will contact and maintain liaison with the District Traffic Engineer and coordinate any necessary work. Do not perform any excavation or underground activity until the Department locates and marks the cable.

The Engineer will coordinate placement of messages on ARTIMIS controlled overhead message signs.

COORDINATION OF WORK WITH OTHER CONTRACTS

Be advised, there may be an active project(s) adjacent to or within this project. The Engineer will coordinate the work of the Contractors. See Section 105.06.

1-3193 Coordination Contracts
01/02/2012

SPECIAL NOTE FOR DOUBLE ASPHALT SEAL COAT
FE01 SPP 008 0075 181-182

Use RS-2 or CRS-2P asphalt material that is compatible with the seal aggregate. Apply each course of Asphalt Seal Coat at the rate of 2.4 lbs/sy of asphalt and 20 lbs/sy of size #9M seal coat aggregate. The Engineer may adjust the rate of application as conditions warrant. Use caution in applying liquid asphalt material to avoid over spray getting on curbs, gutter, barrier walls, bridges, guardrail, and other roadway appurtenances.

When placing DGA on the shoulder, allow for the thickness of the double Asphalt Seal Coat so as to allow for positive drainage from the pavement across the shoulder. The Department will not measure any surface preparation required prior to applying the asphalt seal coat, but shall be incidental to “Asphalt Material for Asphalt Seal Coat”.

SPECIAL NOTES FOR GUARDRAIL
FD04 SPP 008 0075 181-182

I. DESCRIPTION

Except as specified herein, perform all work in accordance with the Department's 2012 Standard and Supplemental Specifications, Special Notes and Special Provisions, and Standard and Sepia Drawings, current editions. Article references are to the Standard Specifications.

Furnish all equipment, labor, materials, and incidentals for the following work items:

(1) Site preparation; (2) Remove existing guardrail system; (3) Construct Guardrail, End Treatments, and Delineators for Guardrail; (4) Maintain and control traffic; and (5) all other work specified as part of this contract.

II. MATERIALS

Except as specified herein, provide for all materials to be sampled and tested in accordance with the Department's Sampling Manual and make the materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing.

A Maintain and Control Traffic. See Traffic Control Plan.

B. Guardrail. Furnish guardrail system components according to section 814 and the Standard Drawings; except use 7 foot length steel posts only, no alternates.

C. Delineators for Guardrail. Furnish white mono-directional Delineators for Guardrail according to the Delineators for Guardrail Sepia Drawing.

D. Erosion Control. See Special Notes for Erosion Control.

III. CONSTRUCTION METHODS

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Remove Guardrail. After closing ramp, remove existing guardrail system according to Section 719.03 and 719.07.

C. Site Preparation. . Be responsible for all site preparation, including but not limited to, clearing and grubbing, excavation, embankment, and removal of all obstructions or any other items; regrading, reshaping, adding and compacting of suitable materials on the existing shoulders to provide proper template or foundation for the guardrail; filling voids left as the result of removing existing guardrail and guard posts with dry sand; temporary

pollution and erosion control; disposal, of excess and waste materials and debris; and final dressing, cleanup, and seeding and protection. Perform all site preparation as approved or directed by the engineer.

D. Guardrail. Except as specified herein, construct guardrail system according to Section 719 and the Standard Drawings. Locations listed on the summary and/or shown on the drawings are approximate only. The Engineer will determine the exact termini for individual guardrail installations at the time of construction. Unless directed otherwise by the Engineer, place the face of the new guardrail at the outside edge of the new paved shoulder.

Erect guardrail to the lines and grades shown on current Standard Drawings or as directed by the Engineer by any method approved by the Engineer which allows construction of the guardrail to the true grade without apparent sags.

If guardrail is not completed before ramp is reopened to traffic, protect with a shoulder closure and do not leave a blunt end exposed where it would be hazardous to the public by providing a temporary end by connecting at least 25 feet of rail to the last post, and by slightly flaring, and burying the end of the rail completely into the existing shoulder. If left overnight, place a drum with bridge panel in advance of the guardrail end and maintain during use.

E. Delineators for Guardrail. Construct Delineators for Guardrail according to the Delineators for Guardrail Sepia Drawing.

F. Property Damage. Be responsible for all damage to public and/or private property resulting from the work. Restore damaged roadway features and private property at no additional cost to the Department.

G. Coordination with Utility Companies. Locate all underground, above ground and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs as a result of guardrail operations at no additional cost to the Department.

H. Right of Way Limits. The Department has not established exact limits of the Right-of-Way. Limit work activities to obvious Right-of-Way, permanent or temporary easements, and work areas secured by the Department through consent and release of the adjacent property owners. Be responsible for all encroachments onto private lands.

I. Disposal of Waste. Dispose of all removed concrete, debris, and other waste and debris off the Right-of-Way at sites obtained by the Contractor at no additional cost to the Department. See Special; Note for Waste and Borrow.

J. Final Dressing, Clean Up, and Seeding and Protection. Apply Class A Final Dressing to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas according to the Special Notes for Erosion Control.

K. Erosion Control. See Special Notes for Erosion Control.

IV. METHOD OF MEASUREMENT

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Remove Guardrail. The Department will measure removing guardrail according to section 719.04.08; however, the Engineer will include the length of end treatments in the measured length of the removed guardrail.

C. Site preparation. Other than the bid items listed, the Department will not measure Site Preparation for separate payment but shall be incidental to Guardrail, End Treatments, and Terminal Sections as applicable.

D. Guardrail. See Section 719.04.01. Contrary to section 719.04.03, the Department will not measure extra length (7 foot) posts for separate payment but shall be incidental to Guardrail, Steel W Beam, Single Face.

E. Guardrail End Treatment. See Section 719.04.04.

F. Delineators for Guardrail. See Delineators for Guardrail Sepia Drawing.

G. Erosion Control. See Special Notes for Erosion Control.

V. BASIS OF PAYMENT

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Remove Guardrail, Guardrail, and End Treatments. See Section 719.05.

C. Delineators for Guardrail. See Delineators for Guardrail Sepia Drawing.

D. Erosion Control. See Special Notes for Erosion Control.

SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS

Consider the dimensions shown on the typical sections for pavement and shoulder widths and thickness' to be nominal or typical dimensions. The Engineer may direct or approve varying the actual dimensions to be constructed to fit existing conditions. Do not widen existing pavement or shoulders unless specified elsewhere in this proposal or directed by the engineer.

1-3725 Typical Section Dimensions
01/02/2012

TRAFFIC CONTROL PLAN
FD04 SPP 008 181-182

TRAFFIC CONTROL GENERAL

Except as provided herein, maintain and control traffic in accordance with the 2012 Standard and Supplemental Specifications, Special Notes and Special Provisions, Standard and Sepia Drawings, and the MUTCD, current editions. Except for the roadway and traffic control bid items listed, all items of work necessary to maintain and control traffic will be paid at the lump sum bid price to "Maintain and Control Traffic".

Contrary to Section 106.01, furnish new, or used in like new condition, traffic control devices at the beginning of the work and maintain in like new condition until completion of the work.

TRAFFIC COORDINATOR

Furnish a Project Traffic Coordinator according to Section 112.03.12 for a Significant Project. The Project Traffic Coordinator shall provide for inspection of the project maintenance of traffic a minimum of once every two hours during the Contractor's operations and at any time a lane or ramp closure is in place. Provide the project personnel with access on the project to a radio or telephone to be used in case of emergencies or accidents.

RAMP CLOSURE, PROJECT PHASING & CONSTRUCTION PROCEDURES

The Department will permit the Contractor to close the right hand lane of Southbound I-75 and the Southbound I-75 Exit Ramp 181 to KY 18 for a single period of up to nine (9) calendar days (216 Hours), from 11:59 PM on a Friday to 11:59 PM of the second Sunday following the closure, to reconstruct the ramp. Select a period and submit to the Engineer for approval a minimum of thirty (30) calendar days prior to the proposed closure; however, the Engineer will not approve a ramp closure period that includes any day that Boone County Schools are in regular session or any of the following days:

May 27-30, 2016	Memorial Day Weekend
July 1-4, 2016	Independence Day Weekend
September 2-4, 2016	Labor Day Weekend

The Department will allow single lane closures in one direction of travel during active operations on US 42 and KY 18 except during the following hours during which the Contractor shall maintain all lanes open to traffic:

5:30 AM – 9:30 PM	Monday through Friday
11:00 AM – 9:30 PM	Saturday and Sunday

The Engineer may designate additional days and/or hours when ramp and lane closures will not be allowed.

The Department will require night work on this project. Obtain the Engineer's approval of the method of lighting prior to performing night work.

The Department will prepare a Public Information Plan and provide public notification. Notify the Engineer immediately and obtain prior approval of any deviations from the previously approved closure schedule.

Take these restrictions into account in submitting bid. The Department will not consider any claims for money or grant contract time extensions for any delays to the Contractor as a result of these restrictions.

LANE AND SHOULDER CLOSURES

Close the right hand lane of Southbound I-75 whenever the Ramp is closed. Additional single and double lane closures on Southbound and Northbound I-75 and on US 42 and KY 18 will be permitted between the hours of 10 PM and 5 AM for the erection, covering and uncovering, and removal of detour signing; however maintain a minimum of two lanes of traffic in each direction on I-75 and one lane in each direction on US 42 and KY 18 at all times.

After constructing the JPC Pavement, the Engineer will permit single lane closures on the Exit 181 Ramp between the hours of 10 PM and 5 AM for installation of Inlaid Pavement Markers and application of Double Asphalt Seal Coat, if not constructed during the ramp closure. Obtain the Engineer's prior approval of the proposed lane closure schedule.

Other than installation and removing of temporary signing, inlaid pavement markings, asphalt seal coat, flexible delineators and final dressing and seeding, the Engineer will not allow any other work to be performed under lane closures.

If not constructed during the ramp closure, the Engineer will allow ramp shoulder closures that cause little disruption to traffic for installation of Flexible Delineator Posts, Final Dressing, and Seeding.

Except for detour signing operations, restrict lane closures for I-75, US 42, and KY 18 work areas to not more than one lane of traffic plus 12 inches maximum of only one adjacent lane in each direction of travel. Provide a minimum lane width of 11 feet; however, provide for passage of vehicles of up to 16 feet in width.

Except during the time the ramp is closed, do not leave lane closures in place on I-75 or KY 18 during non-working hours and maintain lane closures only during hours of actual operations.

Reduce lane closures to a shoulder closure, or remove as appropriate, when active operations do not require a lane closure. The Engineer will allow shoulder closures during non-working hours; however, do not park equipment or store materials on a closed shoulder during non-working hours.

The Engineer may designate days and hours when lane and/or shoulder closures will not be allowed.

Take these restrictions into account in submitting bid. The Department will not consider any claims for money or grant contract time extensions for any delays to the Contractor as a result of these restrictions.

DETOUR

The Department has designated the KY 18 Ramp detour to be by Southbound I-75, US 42, and Northbound I-75 back to KY 18. Consider the detour signing detail to be conceptual only. Partner with the Engineer and develop a detailed detour signing plan, obtain the Engineer's approval, and erect signing before closing the ramp. Maintain coverings approved by the Engineer over detour signing when the ramp is not closed. Maintain detour signing when ramp is closed and remove when the ramp is reopened.

PAVEMENT MARKINGS

Use 6 inch white removable striping tape for lane closure on I-75. Use 8 inch black removable striping tape to cover striping and raised pavement markers that do not conform to the required traffic control. Place permanent 6 inch striping on the new JCP Pavement before reopening the ramp to traffic.

TEMPORARY SIGNS

The Contractor shall be responsible for advance warning signs, road closure signs, detour signs, barricades, drums, and work zone and pavement condition warning signs as shown on the Standard Drawings and additional signs as directed by Engineer.

Contrary to section 112.04.02, only long term signs (signs intended to be continuously in place for more than 3 days) will be measured for payment; short term signs (signs intended to be left in place for 3 days or less) will not be measured for payment but shall be incidental to Maintain and Control Traffic. The Engineer may require oversize signs.

PERMANENT SIGNS

Cover permanent signs that do not conform to the required traffic control. Protect permanent signs in the work area. Remove, store, and reset permanent signs that interfere with the work. Replace permanent signs damaged or lost by the Contractor's operations. The Department will not measure covering, protecting, removing, storing, resetting or replacing permanent signs, but shall be incidental to Maintain and Control Traffic.

ROADWAY LIGHTING

See Special Note for JPC Pavement and JPC Shoulder §III.B.

ARROW PANELS

Use arrow panels as shown on the Standard Drawings or as directed by the Engineer. The Department will measure for payment the maximum number of arrow panels in concurrent use at the same time on a single day on all sections of the contract. The Department will measure individual Arrow Panels only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. The Department will not measure replacements for damaged Arrow Panels or for Arrow Panels the Engineer directs be replaced due to poor condition or readability for payment. Retain possession of the Arrow Panels upon completion of the work.

CHANGEABLE MESSAGE SIGNS

Provide changeable message signs in advance of and within the project at locations determined by the Engineer. The Engineer will determine the messages to be displayed. In the event of damage or mechanical/electrical failure, repair or replace the Changeable Message Sign immediately if the ramp or a lane is closed, or within 24 hours at other times. The Department will measure for payment the maximum number of Changeable Message Signs in concurrent use at the same time on a single day on all sections of the contract. The Department will measure individual Changeable Message Signs only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. The Department will not measure replacements for damaged Changeable Message Signs or for Changeable Message Signs the Engineer directs be replaced due to poor condition or readability. Retain possession of the Changeable Message Signs upon completion of the work.

TRAFFIC SIGNALS

Construct the signal detection items for the KY 18 Ramp Signals according to the Special Note for Preformed Quadrapole Loops and test for operation before reopening the ramp to traffic. Repair any signal items not included in the work damaged by the Contractor's operations at no additional cost to the Department.

If deemed necessary by the Engineer, the Department will adjust the existing KY 18 and US 42 traffic signal sequencing and timing when the KY 18 Ramp is closed.

BARRICADES

The Department will not measure barricades used in lieu of barrels and cones for channelization or delineation, but shall be incidental to Maintain and Control Traffic according to Section 112.04.01.

The Department will measure barricades used for ramp closure and to protect pavement removal areas in individual units Each. The Department will measure for payment the maximum number of barricades in concurrent use at the same time on a single day on all sections of the contract. The Department will measure individual barricades only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. The Department will not measure replacements for damaged Barricades or for Barricades the Engineer directs be replaced due to poor condition or readability for payment. Retain possession of the Barricades upon completion of construction.

INLAID PAVEMENT MARKERS & FLEXIBLE DELINEATORS

Place Inlaid Pavement Markers according to the Special Note for Inlaid Pavement Markers. Install the markers during the ramp closure or behind stationary single lane closures during the allowable time frames. Obtain the Engineer's approval for stationary lane closures prior to use. Sign approved stationary lane closures according to Standard Drawing TTC-115-02. Install all necessary traffic control devices before beginning work.

Install Flexible Delineators according to the Sepia Drawing detail during the ramp closure or behind shoulder closures after ramp is reopened.

THERMOPLASTIC INTERSECTION MARKINGS

Consider the locations listed on the summary as approximate only. Prior to pavement removal, locate and document the locations of the existing markings. After constructing the new pavement, replace the markings at their approximate existing locations, or as directed by

Engineer. Place Thermoplastic Intersection Markings not previously existing as directed by the Engineer. Place the Thermoplastic Intersection Markings during ramp closure before ramp is reopened to traffic.

TRUCK MOUNTED ATTENUATOR

If construction of Inlaid Pavement Markers and/or other work permitted by the Engineer are performed under a stationary lane closure, protect the work zone with a Truck Mounted Attenuator (TMA) conforming to Sections 725.02.05 and 725.03.03. Place the TMA within the lane closure at locations approved by the Engineer. Contrary to Section 725.03.03, retain possession of the TMA upon completion of the work. Contrary to Section 725.04.04, the Department will not measure the TMA for separate payment but shall be incidental to Maintain and Control Traffic.

LAW ENFORCEMENT OFFICER

The Department will require Law Enforcement Officer police support on I-75 during detour signing operations, when establishing and removing the ramp closure, and ramp lane closures; each unit consisting of an off-duty law enforcement officer from any police agency having lawful jurisdiction (be aware that some work activities may be in Kenton as well as Boone County) with a police vehicle equipped with externally mounted flashing blue lights. Provide two (2) police support units for detour signing and when establishing and removing the ramp closure. Provide one (1) police support unit for ramp lane closure. Place the police support unit at locations determined by the Engineer. The Department will measure and pay for each approved individual police support unit at the Contract unit price per hour for the officer and police vehicle as a unit.

PAVEMENT EDGE DROP-OFFS

Do not allow a pavement edge between opposing directions of traffic or lanes that traffic is expected to cross in a lane change situation with an elevation difference greater than 1½". Place Warning signs (MUTCD W8-11 or W8-9A) in advance of and at 1500' intervals throughout the drop-off area. Dual post the signs on both sides of the traveled way. Protect drop-offs that traffic is not expected to cross as follows:

Less than 2" - No protection required.

2" to 4" - Place plastic drums, vertical panels, or barricades every 50 feet. During daylight working hours only, the Engineer will allow the Contractor to use cones in lieu of plastic drums, panels, and barricades. Provide warning signs as shown on the Standard Drawings or as directed by the Engineer. When work is not active in

the drop-off area, wedge the drop-off with DGA with a 1:1 or flatter slope in daylight hours, or 3`:1 or flatter slope during nighttime hours.

Greater than 4’ - Protect drop-offs greater than 4 inches within 10 feet of traffic by placing drums, vertical panels, or barricades every 25 feet. The Engineer will not allow the use of cones in lieu of drums, vertical panels, or barricades for drop-offs greater than 4”. Place Type III Barricades directly in front of the drop-off facing on coming traffic in both directions of travel. Provide warning signs as shown on the Standard Drawings or as directed by the Engineer. When work is not active in the drop-off area, wedge the drop-off with DGA with a 1:1 or flatter slope in daylight hours, or 3:1 or flatter slope during nighttime hours,

Pedestrians & Bicycles - Protect pedestrian and bicycle traffic as directed by the engineer.

USE AND PLACEMENT OF CHANGEABLE MESSAGE SIGNS

The following policy is based upon current Changeable Message Signs (CMS) standards and practice from many sources, including the Federal Highway Administration (FHWA), other State Departments of Transportation, and Traffic Safety Associations. It is understood that each CMS installation or use requires individual consideration due to the specific location or purpose. However, there will be elements that are constant in nearly all applications. Accordingly these recommended guidelines bring a level of uniformity, while still being open to regional experience and engineering judgment.

Application

The primary purpose of CMS is to advise the driver of unexpected traffic and routing situations. Examples of applications where CMS can be effective include:

- Closures (road, lane, bridge, ramp, shoulder, interstate)
- Changes in alignment or surface conditions
- Significant delays, congestion
- Construction/maintenance activities (delays, future activities)
- Detours/alternative routes
- Special events with traffic and safety implications
- Crash/incidents
- Vehicle restrictions (width, height, weight, flammable)
- Advance notice of new traffic control devices
- Real-time traffic conditions (must be kept up to date)
- Weather /driving conditions, environmental conditions, Roadway Weather Information Systems
- Emergency Situations
- Referral to Highway Advisory Radio (if available)
- Messages as approved by the County Engineer's Office

CMS should not be used for:

- Replacement of static signs (e.g. road work ahead), regulatory signage (e.g. speed limits), pavement markings, standard traffic control devices, conventional warning or guide signs.
- Replacement of lighted arrow board
- Advertising (Don't advertise the event unless clarifying "action" to be taken by driver – e.g. Speedway traffic next exit)
- Generic messages
- Test messages (portable signs only)
- Describe recurrent congestion (e.g. rush hour)
- Public service announcements (not traffic related

Messages

Basic principles that are important to providing proper messages and insuring the proper operation of a CMS are:

- Visible for at least ½ mile under ideal daytime and nighttime conditions
- Legible from all lanes a minimum of 650 feet
- Entire message readable twice while traveling at the posted speed
- Nor more than two message panels should be used (three panels may be used on roadways where vehicles are traveling less than 45 mph). A panel is the message that fits on the face of the sign without flipping or scrolling.
- Each panel should convey a single thought; short and concise
- Do not use two unrelated panels on a sign
- Do not use the sign for two unrelated messages
- Should not scroll text horizontally or vertically
- Should not contain both the words left and right
- Use standardized abbreviations and messages
- Should be accurate and timely
- Avoid filler/unnecessary words and periods (hazardous, a, an, the)
- Avoid use of speed limits
- Use words (not numbers) for dates

Placement

Placement of the CMS is important to insure that the signs is visible to the driver and provides ample time to take any necessary action. Some of the following principles may only be applicable to controlled access roadways. The basic principles of placement for a CMS are:

- When 2 signs are needed, place on same side of roadway and at least 1,000 feet apart
- Place behind semi-rigid/rigid protection (guardrail, barrier) or outside of the clear zone
- Place 1,000 feet in advance of work zone; at least one mile ahead of decision point
- Normally place on right side of roadway; but should be placed closest to the affected lane so that either side is acceptable
- Signs should not be dual mounted (one on each side of roadway facing same direction)
- Point trailer hitch downstream
- Secure to immovable object to prevent thief (if necessary)
- Do not place in sags or just beyond crest
- Check for reflection of sun to prevent the blinding of motorist
- Should be turned ~3 degrees outward from perpendicular to the edge of pavement
- Bottom of sign should be 7 feet above the elevation of edge of roadway
- Should be removed when not in use
-

Standard Abbreviations

The following is a list of standard abbreviations to be used on CMS.

Word	Abbrev.	Example
Access	ACCS	ACCIDENT AHEAD/USE ACCS RD NEXT RIGHT
Alternate	ALT	ACCIDENT AHEAD/USE ALT RTE NEXT RIGHT
Avenue	AVE	FIFTH AVE CLOSED/DETOUR NEXT LEFT
Blocked	BLKD	FIFTH AVE BLKD/MERGE LEFT
Boulevard	BLVD	MAIN BLVD CLOSED/USE ALT RTE
Bridge	BRDG	SMITH BRDG CLOSED/USE ALT RTE
Cardinal Directions	N, S, E, W	N I75 CLOSED/ DETOUR EXIT 30
Center	CNTR	CNTR LANE CLOSED/MERGE LEFT
Commercial	COMM	OVRSZ COMM VEH/USE I275
Condition	COND	ICY COND POSSIBLE
Congested	CONG	HVY CONG NEXT 3 MI
Construction	CONST	CONST WORK AHEAD/EXPECT DELAYS
Downtown	DWNTN	DWNTN TRAF USE EX 40
Eastbound	E-BND	E-BND I64 CLOSED/DETOUR EXIT 20
Emergency	EMER	EMER VEH AHEAD/PREPARE TO STOP
Entrance, Enter	EX, EXT	DWNTN TRAF USE EX 40
Expressway	EXPWY	WTRSN EXPWY CLOSED/DETOUR EXIT 10
Freeway	FRWY, FWY	GN SYNDR FWY CLOSED/DETOUR EXIT 15
Hazardous Materials	HAZMAT	HAZMAT IN ROADWAY/ALL TRAF EXIT 25
Highway	HWY	ACCIDENT ON AA HWY/EXPECT DELAYS
Hour	HR	ACCIDENT ON AA HWY/2 HR DELAY
Information	INFO	TRAF INFO TUNE TO 1240 AM
Interstate	I	E-BND I64 CLOSED/DETOUR EXIT 20
Lane	LN	LN CLOSED/MERGE LEFT
Left	LFT	LANE CLOSED/MERGE LFT
Local	LOC	LOC TRAF USE ALT RTE
Maintenance	MAINT	MAINT WRK ON BRDG/SLOW

Major	MAJ	MAJ DELWAYS I75/USE ALT RTE
Mile	MI	ACCIDENT 3 MI AHEAD/ USE ALT RTE
Minor	MNR	ACCIDENT 3 MI MNR DELAY
Minutes	MIN	ACCIDENT 3 MI/30 MIN DELAY
Northbound	N-BND	N-BND I75 CLOSED/ DETOUR EXIT 50
Oversized	OVRSZ	OVRSZ COMM VEH/USE I275 NEXT RIGHT
Parking	PKING	EVENT PKING NEXT RGT
Parkway	PKWY	CUM PKWAY TRAF/DETOUR EXIT 60
Prepare	PREP	ACCIDENT 3 MIL/PREP TO STOP
Right	RGT	EVENT PKING NEXT RGT
Road	RD	HAZMAT IN RD/ALL TRAF EXIT 25
Roadwork	RDWK	RDWK NEXT 4 MI/POSSIBLE DELAYS
Route	RTE	MAJ DELAYS I75/USE ALT RTE
Shoulder	SHLDR	SHLDR CLOSED NEXT 5 MI
Slippery	SLIP	SLIP COND POSSIBLE/ SLOW SPD
Southbound	S-BND	S-BND I75 CLOSED/DETOUR EXIT 50
Speed	SPD	SLIP COND POSSIBLE/ SLOW SPD
Street	ST	MAIN ST CLOSED/USE ALT RTE
Traffic	TRAF	CUM PKWAY TRAF/DETOUR EXIT 60
Vehicle	VEH	OVRSZ COMM VEH/USE I275 NEXT RIGHT
Westbound	W-BND	W-BND I64 CLOSED/DETOUR EXIT 50
Work	WRK	CONST WRK 2MI/POSSIBLE DELAYS

Certain abbreviations are prone to inviting confusion because another word is abbreviated or could be abbreviated in the same way. DO NO USE THESE ABBREVIATIONS.

Abbrev.	**Intended Word**	**Word Erroneously Given**
ACC	Accident	Access (Road)
CLRS	Clears	Colors
DLY	Delay	Daily
FDR	Feeder	Federal
L	Left	Lane (merge)
LOC	Local	Location
LT	Light (traffic)	Left
PARK	Parking	Park
POLL	Pollution (index)	Poll

RED	Reduce	Red
STAD	Stadium	Standard
TEMP	Temporary	Temperature
WRNG	Warning	Wrong

TYPICAL MESSAGES

The following is a list of typical messages used on CMS. The list consists of the reason or problem that you want the driver to be aware of and the action that you want the driver to take.

Reason/Problem	Action
ACCIDENT	ALL TRAFFIC EXIT RT
ACCIDENT/XX MILES	AVOID DELAY USE XX
XX ROAD CLOSED	CONSIDER ALT ROUTE
XX EXIT CLOSED	DETOUR
BRIDGE CLOSED	DETOUR XX MILES
BRIDGE/(SLIPPERY, ICE, ETC.)	DO NOT PASS
CENTER/LANE/CLOSED	EXPECT DELAYS
DELAY(S), MAJOR/DELAYS	FOLLOW ALT ROUTE
DEBRIS AHEAD	KEEP LEFT
DENSE FOG	KEEP RIGHT
DISABLED/VEHICLE	MERGE XX MILES
EMER/VEHICLES/ONLY	MERGE LEFT
EVENT PARKING	MERGE RIGHT
EXIT XX CLOSED	ONE-WAY TRAFFIC
FLAGGER XX MILES	PASS TO LEFT
FOG XX MILES	PASS TO RIGHT
FREEWAY CLOSED	PREPARE TO STOP
FRESH OIL	REDUCE SPEED
HAZMAT SPILL	SLOW
ICE	SLOW DOWN
INCIDENT AHEAD	STAY IN LANE
LANES (NARROW, SHIFT, MERGE, ETC.)	STOP AHEAD
LEFT LANE CLOSED	STOP XX MILES
LEFT LANE NARROWS	TUNE RADIO 1610 AM
LEFT 2 LANES CLOSED	USE NN ROAD
LEFT SHOULDER CLOSED	USE CENTER LANE
LOOSE GRAVEL	USE DETOUR ROUTE
MEDIAN WORK XX MILES	USE LEFT TURN LANE
MOVING WORK ZONE, WORKERS IN ROADWAY	USE NEXT EXIT
NEXT EXIT CLOSED	USE RIGHT LANE
NO OVERSIZED LOADS	WATCH FOR FLAGGER

NO PASSING
NO SHOULDER
ONE LANE BRIDGE
PEOPLE CROSSING
RAMP CLOSED
RAMP (SLIPPERY, ICE, ETC.)
RIGHT LANE CLOSED
RIGHT LANE NARROWS
RIGHT SHOULDER CLOSED
ROAD CLOSED
ROAD CLOSED XX MILES
ROAD (SLIPPERY, ICE, ETC.)
ROAD WORK
ROAD WORK (OR CONSTRUCTION) (TONIGHT, TODAY, TOMORROW, DATE)
ROAD WORK XX MILES
SHOULDER (SLIPPERY, ICE, SOFT, BLOCKED, ETC.)
NEW SIGNAL XX MILES
SLOW 1 (OR 2) - WAY TRAFFIC
SOFT SHOULDER
STALLED VEHICLES AHEAD
TRAFFIC BACKUP
TRAFFIC SLOWS
TRUCK CROSSING
TRUCKS ENTERING
TOW TRUCK AHEAD
UNEVEN LANES
WATER ON ROAD
WET PAINT
WORK ZONE XX MILES
WORKERS AHEAD

SPECIAL NOTE FOR EROSION CONTROL

I. DESCRIPTION

Perform all erosion and water pollution control work in accordance with the Department's Standard and Interim Supplemental Specifications, Special Provisions and Special Notes, and Standard and Sepia Drawings, current editions, and as directed by the Engineer. Section references are to the Standard Specifications. This work shall consist of:

(1) Developing and preparing a Best Management Practices Plan (BMP) tailored to suit the specific construction phasing for each site within the project; (2) Preparing the project site for construction, including locating, furnishing, installing, and maintaining temporary and/or permanent erosion and water pollution control measures as required by the BMP prior to beginning any earth disturbing activity on the project site; (3) Clearing and grubbing and removal of all obstructions as required for construction; (4) Removing all erosion control devices when no longer needed; (5) Restoring all disturbed areas as nearly as possible to their original condition; (6) Preparing seedbeds and permanently seeding all disturbed areas; (7) Providing a Kentucky Erosion Prevention and Sediment Control Program (KEPSC) qualified inspector; and (8) Performing any other work to prevent erosion and/or water pollution as specified by this contract, required by the BMP, or as directed by the Engineer.

II. MATERIALS

Furnish materials in accordance with these notes, the Standard Specifications and Interim Supplemental Specifications, and applicable Special Provisions and Special Notes, and Standard and Sepia Drawings, current editions. Provide for all materials to be sampled and tested in accordance with the Department's Sampling Manual. Unless directed otherwise by the Engineer, make the materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing.

III. CONSTRUCTION

Be advised, these Erosion Control Plan Notes do not constitute a BMP plan for the project. Jointly with the Engineer, prepare a site specific BMP plan for each drainage area within the project in accordance with Section 213. Provide a unique BMP at each project site using good engineering practices taking into account existing site conditions, the type of work to be performed, and the construction phasing, methods and techniques to be utilized to complete the work. Be responsible for all erosion prevention, sediment control, and water pollution prevention measures required by the BMP for each site. Represent and warrant compliance with the Clean Water Act (33 USC Section 1251 et seq.), the 404 Permit, the 401 Water Quality Certification, and applicable state and

local government agency laws, regulations, rules, specifications, and permits. Contrary to Section 105.05, in case of discrepancy between theses notes, the Standard Specifications, Interim Supplemental Specifications, Special and Special Notes, Standard and Sepia Drawings, and such state and local government agency requirements, adhere to the most restrictive requirement.

Conduct operations in such a manner as to minimize the amount of disturbed ground during each phase of the construction and limit the haul roads to the minimum required to perform the work. Preserve existing vegetation not required to be removed by the work or the contract. Seed and/or mulch disturbed areas at the earliest opportunity. Use silt fence, silt traps, temporary ditches, brush barriers, erosion control blankets, sodding, channel lining, and other erosion control measures in a timely manner as required by the BMP and as directed or approved by the Engineer. Prevent sediment laden water from leaving the project, entering an existing drainage structure, or entering a stream.

Provide for erosion control measures to be in place and functioning prior to any earth disturbance within a drainage area. Compute the volume and size of silt control devices necessary to control sediment during each phase of construction. Remove sediment from silt traps before they become a maximum of ½ full. Maintain silt fence by removing accumulated trappings and/or replacing the geotextile fabric when it becomes clogged, damaged, or deteriorated, or when directed by the Engineer. Properly dispose of all materials trapped by erosion control devices at approved sites off the right of way obtained by the Contractor at no additional cost to the Department (See Special Note for Waste and Borrow).

As work progresses, add or remove erosion control measures as required by the BMP applicable to the Contractor’s project phasing and construction methods and techniques. Update the volume calculations and modify the BMP as necessary throughout the duration of the project. Ensure that an updated BMP is kept on site and available for public inspection throughout the life of the project.

After all construction is complete, restore all disturbed areas in accordance with Section 212. Completely remove all temporary erosion control devices not required as part of the permanent erosion control from the construction site. Prior to removal, obtain the Engineer’s concurrence of items to be removed. Grade the remaining exposed earth (both on and off the Right of-Way) as nearly as possible to its original condition, or as directed by the Engineer. Prepare the seed bed areas and sow all exposed earthen areas with the applicable seed mixture(s) according to Section 212.03.03.

IV. MEASUREMENT

Erosion Control Blanket. If required by the BMP, the Department will measure Erosion Control Blanket according to Section 212.04.07.

Sodding. If required by the BMP, the Department will measure Sodding according to Section 212.04.08.

Channel Lining. If required by the BMP, the Department will measure Channel Lining according to Sections 703.04.04-703.04.07.

Erosion Control. Contrary to Sections 212.04, 213.04, and 703.04 other than Erosion Control Blankets, Sodding, and Channel Lining, the Department will measure Erosion Control as one lump sum. The Department will not measure developing, updating, and maintaining a BMP plan for each site; providing a KEPSC qualified inspector; locating, furnishing, installing, inspecting, maintaining, and removing erosion and water pollution control items; Roadway Excavation, Borrow Excavation, Embankment In Place, Topsoil Furnished and Placed, and Spreading Stockpiled Topsoil; Topdressing Fertilizer, Temporary and Permanent Seeding and Protection, Special Seeding Crown Vetch, and Temporary Mulch; Sedimentation Basin and Clean Sedimentation Basin, Silt Trap Type "A" and Clean Silt Trap Type "A"; Silt Trap Type "B" and Clean Silt Trap Type "B"; Silt Trap Type "C" and Clean Silt Trap Type "C"; Temporary Silt Fence and Clean Temporary Silt Fence; Plants, Vines, Shrubs, and Trees; Gabion and Dumped Stone Deflectors and Riffle Structures; Boulders; Temporary Ditches and clean Temporary Ditches; Geotextile Fabric, and all other erosion and water pollution control items required by the BMP or the Engineer, but shall be incidental to Erosion Control.

V. Basis of Payment

Erosion Control Blanket. If not listed as a bid item, but required by the BMP, the Department will pay for Erosion Control Blankets as Extra Work according to Sections 104.03 and 109.04.

Sodding. If not listed as a bid item, but required by the BMP, the Department will pay for Sodding as Extra Work according to Sections 104.03 and 109.04.

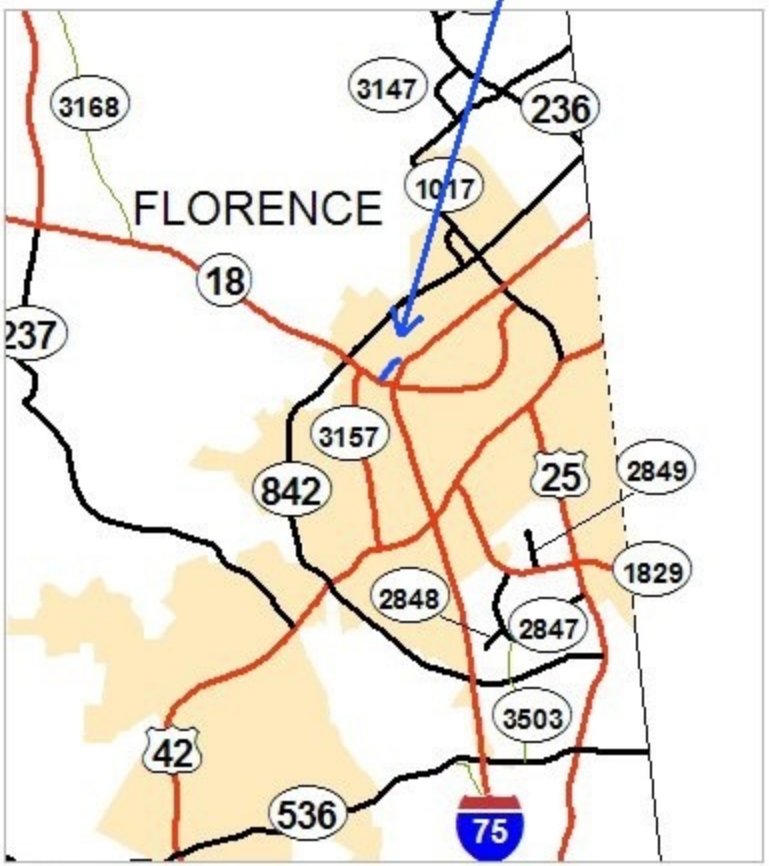
Channel Lining. If not listed as a bid item, but required by the BMP, the Department will pay for Channel Lining as Extra Work according to Sections 104.03 and 109.04.

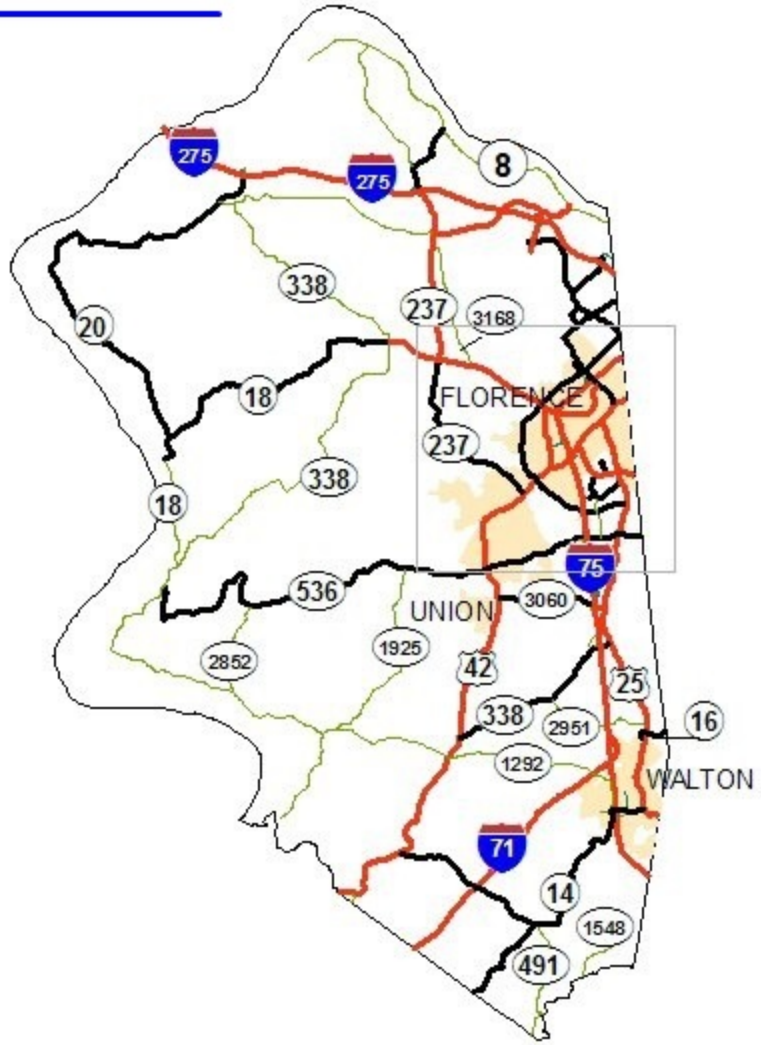
Erosion Control. Contrary to Sections 212.05 and 213.05, other than Erosion Control Blanket, Sodding, and Channel Lining, payment at the Contract lump sum price for Erosion Control, shall be full compensation for all materials, equipment, labor and incidentals necessary to complete the erosion and water pollution control work as specified in these notes, Sections 212 and 213, the Supplemental Specifications, applicable Special Provisions and Special Notes, and Standard and Sepia Drawings, including but not limited to developing, updating, and maintaining a BMP plan for each site; providing a KEPSC qualified inspector; locating, furnishing, installing, inspecting, maintaining, and removing erosion and water pollution control items; Roadway Excavation, Borrow Excavation, Embankment In Place, Topsoil Furnished and Placed, and Spreading Stockpiled Topsoil; Topdressing Fertilizer, Temporary and Permanent Seeding and Protection, Special Seeding Crown Vetch, and Temporary Mulch; Sedimentation Basin and Clean Sedimentation Basin, Silt Trap Type “A” and Clean Silt Trap Type “A”; Silt Trap Type “B” and Clean Silt Trap Type “B”; Silt Trap Type “C” and Clean Silt Trap Type “C”; Temporary Silt Fence and Clean Temporary Silt Fence; Plants, Vines, Shrubs, and Trees; Gabion and Dumped Stone Deflectors and Riffle Structures; Boulders; Temporary Ditches and clean Temporary Ditches; Geotextile Fabric and all other erosion and water pollution control items required by the BMP or the Engineer.

Kentucky
UNBRIDLED SPIRIT

DEPARTMENT OF HIGHWAYS
MAP OF
BOONE COUNTY

FD04 SPP 008 0075 181-182





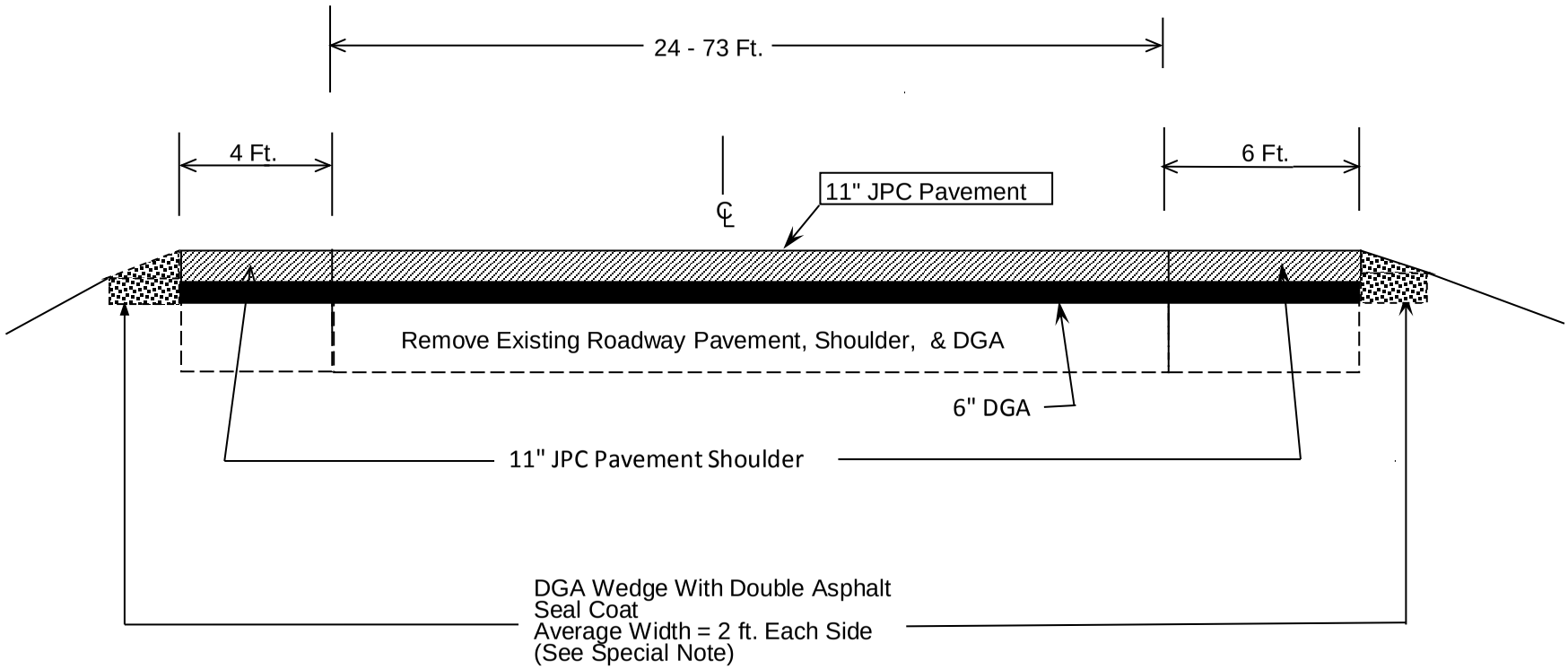
TRAFFIC LOOP SUMMARY
FD04 SPP 008-0075-181-182

RAMP MILEPONT	INTERSECTION	PREFORMED LOOPS LF	PREFORMED LEAD-IN LF	CONDUIT 1 INCH LF	CABLE NO. 14/1 LF	TRENCHING & BACKFILLING LF	JUNCTION BOX			NOTES
							FIBER OP. LF	TYPE B EA	10X8X4 EA	
0.341	KY 18	306	70	70	70	20		1		
TOTAL		306	70	70	70	20	0	1	0	

THERMOPLASTIC INTERSECTION PAVEMENT MARKINGS SUMMARY
FD04 SPP 008-75-181-182

MILEPOINT	INTERSECTION	X-WALKS 6 INCH LF	STP BARS 24 INCH LF	ARROWS			"ONLY"	CATRAXX 6 INCH	RAILROAD		NOTES
				CURVE EA	STR EA	COMB EA	EA	LF	"R" 6 FOOT EA	CROSS BUCK 16" LF	
0.341	KY 18		60	6		3	2	20			
TOTAL		0	60	6	0	3	2	20	0	0	

FD04 SPP 008-0075-181-182
TYPICAL SECTION
NORTHWEST RAMP @ KY 18
MILEPOINT 0.108 - 0.345



PAVEMENT AND SHOULDER REPLACEMENT DETAIL
FD04 SPP 008 0075 181-182

1960 PLAN SHEETS

Boone Co I 75-7(14)178
Covington - Lexington Road

FED. ROAD DIST. NO.	STATE		FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	Ky.		1960	1	38

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

PLAN AND PROFILE OF PROPOSED
STATE HIGHWAY

BOONE CO.
I 75-7(14)178

THIS PROJECT IS A FULLY CONTROLLED ACCESS HIGHWAY

SUBSECTION OF CONTRACT FOR
BOONE COUNTY I 75-7(14)178 SP.8-550-20
8-550-20C/ Grade, drain and surface from Sta. 708+92.09 to Sta. 879+60.

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	Layout Sheet
2-3	Typical Sections—Summary of Quantit
4-10	Plan and Profile Sheets
11-31	Detail Sheets

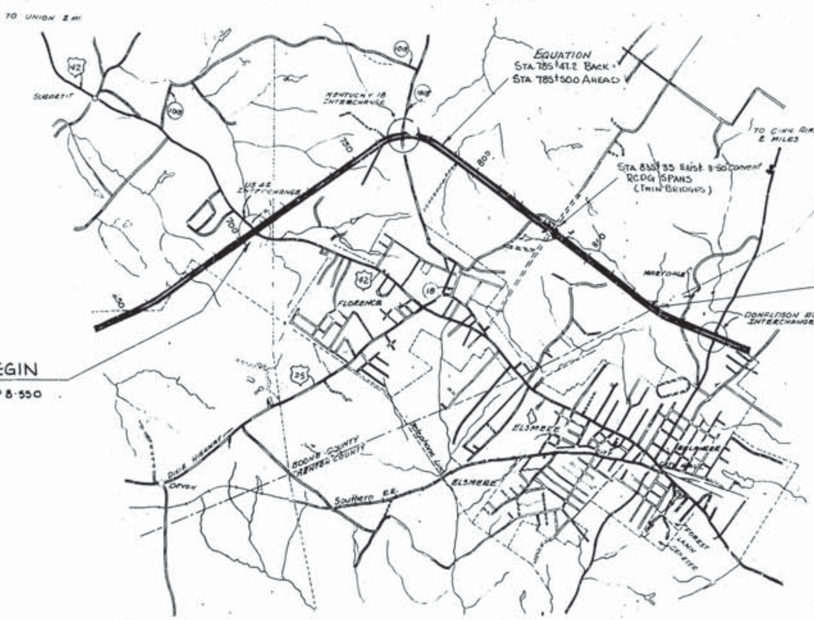
List of Standard Drawings

10.01	Curve Widening and Superelevation
10.02	Solid Rock & Box Inlet Sections
1003-10.04	Miscellaneous Standards, Part 1 & 2
10.06	Typical Roadway Sections
10.10	Superelevation for Dual Pavement
11.01	Drainage Pipe Standards
11.18	Typical Median Drain Installation
11.22	Pipe Bedding Details
11.23	Circular & Non-Circular Pipe Charts
13.01	15" & 18" Median Box Inlets
14.01	Curbs & Curb & Gutter
16.01	Cement Concrete Pavement
16.02	Contraction Joint Load Transfer Assembly
16.04	Station Markings Cement Concrete Pavement
16.05	Cement Concrete Pavement Details
16.06	Expansion Joint Load Transfer Assembly
17.03	Steel Beam Guard Rail
17.04	Guard Rail Installation
18.31	Tied Down Straw Mulch
~~18.1~~	~~Interstate Construction Sign~~ (Deleted 11-9-60)

Total Std. Dwgs.: 21

MICROFILMED-67

AS BUILT



STA. 708+92.09 BEGIN
I 75-7(14) 178 SP 8-550

STA. 879+60 - END
I 75-7(14) 178 SP 8-550

CONSTRUCTION REVISION

DATE	SHEET NO.	DESCRIPTION
9/5/61	#44 of 258	8/11/61

DESIGN DESIGNATION
ADT (1958) 14800
ADT (1975) 38200
DHV 4850
D 60
T 10
V . . . . 60MPH.
FULLY CONTROLLED ACCESS

12-4-62
Executed deeds have been checked with these plans by Right of Way Division and property lines and property owners have been changed when necessary to correspond with executed deeds.
Recording data has also been shown.
Any special stipulations on these executed deeds have been met.
C.J.

CONVENTIONAL SIGNS

Unimproved Road
Grade and Drained Road
Soil Surface Road
Metal Surfaced Road
Low Type Bituminous Road
Paved Road
County Line
Corporate Limits
Survey Line
Proposed Right of Way
Grade Line
Ground Line
Traveled Way
Railroad
Fence (Except Stone & Hedge)
Stone Fence
Hedge Fence
Trees & Stumps
Pipe Line
Telephone Poles
Pipe Culvert
Concrete Culvert & Bridge
Large Stream
Small Stream
Bench Marks
Road Intersections
Marsh
Buildings

GRAPHIC SCALE IN Feet
0 2000 4000 6000 8000

LAYOUT MAP

Plans Prepared By
SMITH - POLLITTE & ASSOC.
2822 Commerce Dr., Columbia, S.C.
J.J. Pollitte
RPE 2059

I 75-7(14)178

KENTUCKY
DEPARTMENT OF HIGHWAYS
COUNTY OF BOONE
COVINGTON - LEXINGTON TENN STATE LINE ROAD
STATE PROJECT No. 8-550
DATE 1960

Gross Length 17065.11 Lin. Ft. 3.232 Miles
Net Length 16908.11 Lin. Ft. 3.201 Miles
Not Included
Bridges Price Pike - 159.0 Lin. Ft.

Surveyed ____ by ____ Chief of Party
Survey Approved 10-26-60 by C.W.Hatt ____
Plan Checked 10-26-60 by S.B. Clements ____
Survey and Plan Approved 10/26/60 by R.D. Beauchamp, Ult.
Survey and Plan Approved 11/10/60 by D.H. Bryce

APPROVED ____ 19 ____
BY: ____ COMMISSIONER OF HIGHWAYS

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
RECOMMENDED FOR APPROVAL:
____ DISTRICT ENGINEER ____ DATE
APPROVED:
____ DIVISION ENGINEER ____ DATE

LETTING DATE 12/2/60

Plans traced by Smith - Pollitt
Plans completed by W.J.B.
Plans checked by ~~M.~~ Early Checked 10-25-60
Final check by E.C. Pebbs
Reviewed by ____ Division of Construction
Filed 1-5-61

Sent for Federal Approval	
Record Plans	
Construction Plans	10 1-5-61

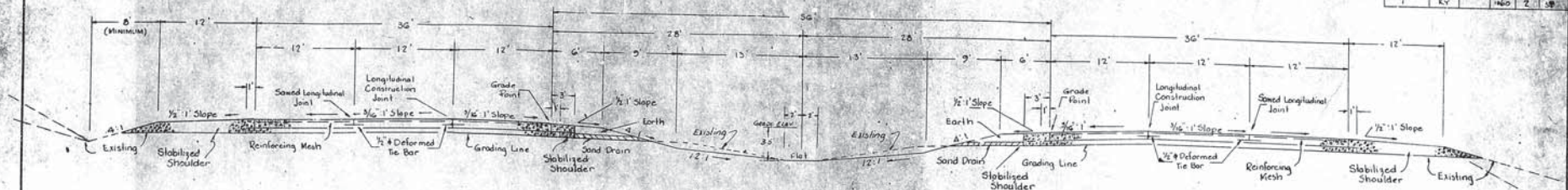
SP 8-550

TYPICAL SECTIONS

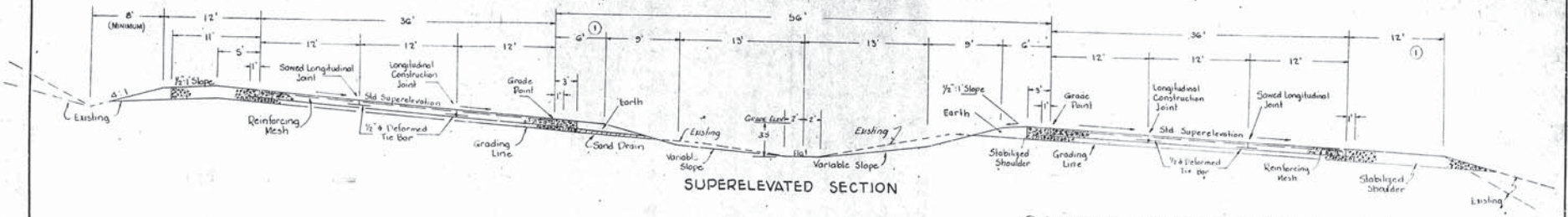
MAIN LINE

Boone Co. I 75-7(14)170
Covington - Lexington Road

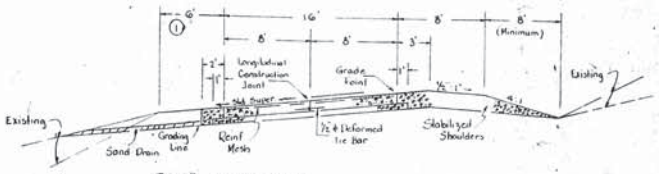
FED ROAD DIV NO	STATE		FISCAL YEAR	SHEET NO	TOTAL SHEETS
7	Ky		1960	2	38



NORMAL SECTION



SUPERELEVATED SECTION



RAMP SECTION

SAND DRAIN NOTE

Sand drains shall be constructed as indicated on this sheet, at all transverse joints exclusive of premoulded filler expansion joints immediately adjacent to bridge abutments provided, however, that additional drains shall be constructed midway between transverse joints on the low side of banked sections. Sand drains shall be constructed 18" in width and to a depth of 2' below subgrade on a slew not to exceed 45° with the pavement as directed by the Engineer, and in such a manner to divert the drainage down grade in the direction of the slope of the roadway. Sand drains shall be constructed to an overall depth of 6' with sand meeting the requirements of Art. 7.3.2 C-1 of the Departments 1956 Standard Specifications. The unit price bid for Cement Concrete Pavement shall include payment in full for all excavation, materials, and labor necessary to complete the sand drains.

DENSE GRADED AGGREGATE BASE

All Dense graded Aggregate base shall be Plant Mixed and constructed in the number of courses necessary to obtain the required density. Each course shall be compacted so as to obtain a density throughout the base equal to or greater than 82 per cent of solid volume.

Stabilized Shoulders

Compacted Dense Graded Aggregate Base (as Indicated)

1½ lbs per Sq. Yd. Calcium Chloride (Top 3" Course only).

Each completed course of the Dense Graded Aggregate Base shall be wetted and rolled as necessary to prevent ravelling until overlying course is applied. In addition to quantities set up the Contractor may use Calcium Chloride as a surface treatment to reduce the amount of wetting and rolling provided satisfactory results are obtained. No direct payment will be made for Calcium Chloride used for this purpose.

① Superelevated Shoulders construct to Standard Superelevation, except not flatter than the slopes indicated on Typical Section for normal Shoulders.

Shoulder surfacing is stage construction. Future wearing surface will be constructed at a later date.

NEW CONSTRUCTION:- *Surfacing*

USING

CEMENT CONCRETE PAVEMENT

Approximately 6" Insulation — Compacted Dense Graded Aggregate Base

10" Surface — Uniform Cement Concrete Pavement, Type D for mix:

Coarse aggregate may be either limestone or gravel.

100% river gravel aggregate may be used if it contains not more than 10% chert, dry weight measurement. "Chert" as used here is defined as a porous impure flint, jasper, agate or onyx. If the gravel contains more than 10% chert it must be combined with approved crushed limestone in the combination by weight of 40% limestone and 60% gravel.

Transit Mixing or Hand finishing will not be permitted in Cement Concrete Pavement Construction. Paving equipment and methods shall meet all requirements of Article 4.1.0 of the Departments 1956 Standard Specifications; provided, however, that Central Mixing will be permitted when done in full compliance with the Special Provision for Central Mixed Concrete for Pavements.

Each completed course of the Dense Graded Aggregate Base shall be wetted and rolled as necessary to prevent ravelling until overlying course is applied.

SP 8-550

Boone I 75-7 (14) 178 Covington - Lexington Road				
FED ROAD DIST NO	STATE	FISCAL YEAR	SHEET NO	TOTAL SHEETS
1	KY	1960	3	39

FOR SURFACING

	LIN FT.	SQ. YDS.	MILES
GROSS LENGTH 2.8 Ft Deducted for Equalities	17065		3.232
NET LENGTH 159.0 Ft Deducted for Bridge	16906		3.201
Added for Acceleration and Deceleration Lanes, Transitions, Ramps and Bridge Drainage Pavement.		18690 Surf. 20422 Insul.	
TOTAL AREA		153939 - Surf. 163185 - Insul.	

SURFACING QUANTITIES

ITEM	UNIT	QUANTITY
CEMENT CONCRETE PAVEMENT (WITH CRUSHED LIMESTONE FOR INSULATION)		
Uniform Cement Concrete Pavement	Sq. Yd	153939
Dense Graded Aggregate Base	Ton	117915 ①
Calcium Chloride (for Shoulder Stabilization)	Ton	49.2
Roll Integral Curb	Lin. Ft.	370
Cement Concrete Lip Curb	Lin. Ft.	80

① Includes 56300 tons for use under Pavement and Ramps, estimated on the basis of 115 lbs. per sq. yd. per inch of depth, and 61315 tons for use in conjunction with shoulder stabilization, estimated at 273.8852 Tons per 100' Sta. Main Line - Tangent Section, 313.1730 Tons per 100' Sta. Main Line Superelevated Section; 135.4506 Tons per 100' Sta Ramps - Superelevation Right; 138.5706 Tons per 100' Sta. - Superelevation Left.

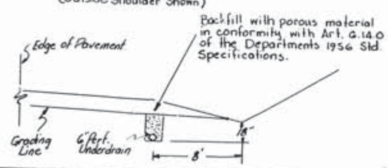
PIPE SUMMARY

ITEM			LIN. FT
CULVERT PIPE			
15"	ALT. A	Reinforced Concrete, Class III	200
	ALT. B	16 Gage B.C.C.M.	200
18"	ALT. A	Reinforced Concrete, Class III	200
	ALT. B	16 Gage B.C.C.M.	200
PERFORATED PIPE ⑤			
6"		18 Gage B.C.C.M.	800

Note: - All Culvert Pipe for which no pipe sheet sections are shown shall be constructed in conformity with Std. Drwg. Nos. 11.22 and 11.23.

⑤ Perforated Pipe for underdrains to be used only if specifically directed and in the locations designated by the Engineer. (See Detail at right)

LOCATION OF UNDERDRAIN
(Outside Shoulder Shown)



GENERAL NOTES

All curves to be superelevated according to Standards.

The Contractor is not to order material for drainage structures until the quantities have been checked by the Engineer.

Drawings for standard warning signs for the protection of traffic will be furnished by the Area Engineer.

Two (2) Construction Identification Signs will be required at U.S. 42 and two (2) at Ky. 18, placed where and as directed by the Engineer on construction.

Slopes shall be rounded in conformity with Standard Drawing No. 10.03

The road may be closed to all traffic provided, however, that cross roads shall be kept open to all traffic at all times.

The Standard Specifications for Road and Bridge Construction, edition of 1956, as amended by the amendments and provisions, published in Pamphlet No. 1 of "Approved Amendments, Provisions and Specifications" with the following Special Specifications and additional Amendments and Provisions will apply on this project:

Amendment No. 31 . . . Seeding and Protection
Amendment No. 32 . . . Transit Mixers
Amendment No. 35 . . . Mixing Different Brands of Cement.
Amendment No. 36 . . . Deep Beam Type Steel Guard Rail.

Special Provision for Boone Co. I 75-7(14)178
Special Provision for Seed Germination Test.
Special Provision for Interstate Surfacing Projects (Revised 9/21/60)
Special Provision for Partial Payments for Stockpiled Materials.
Special Provision for Central Mixed Concrete for Pavement
Required Provisions Federal Aid Contracts Interstate Highways (Revised 1/6/59)
Special Provision for Construction Identification Signs on Federal Aid Highway Projects.
Erosion Control Notes.

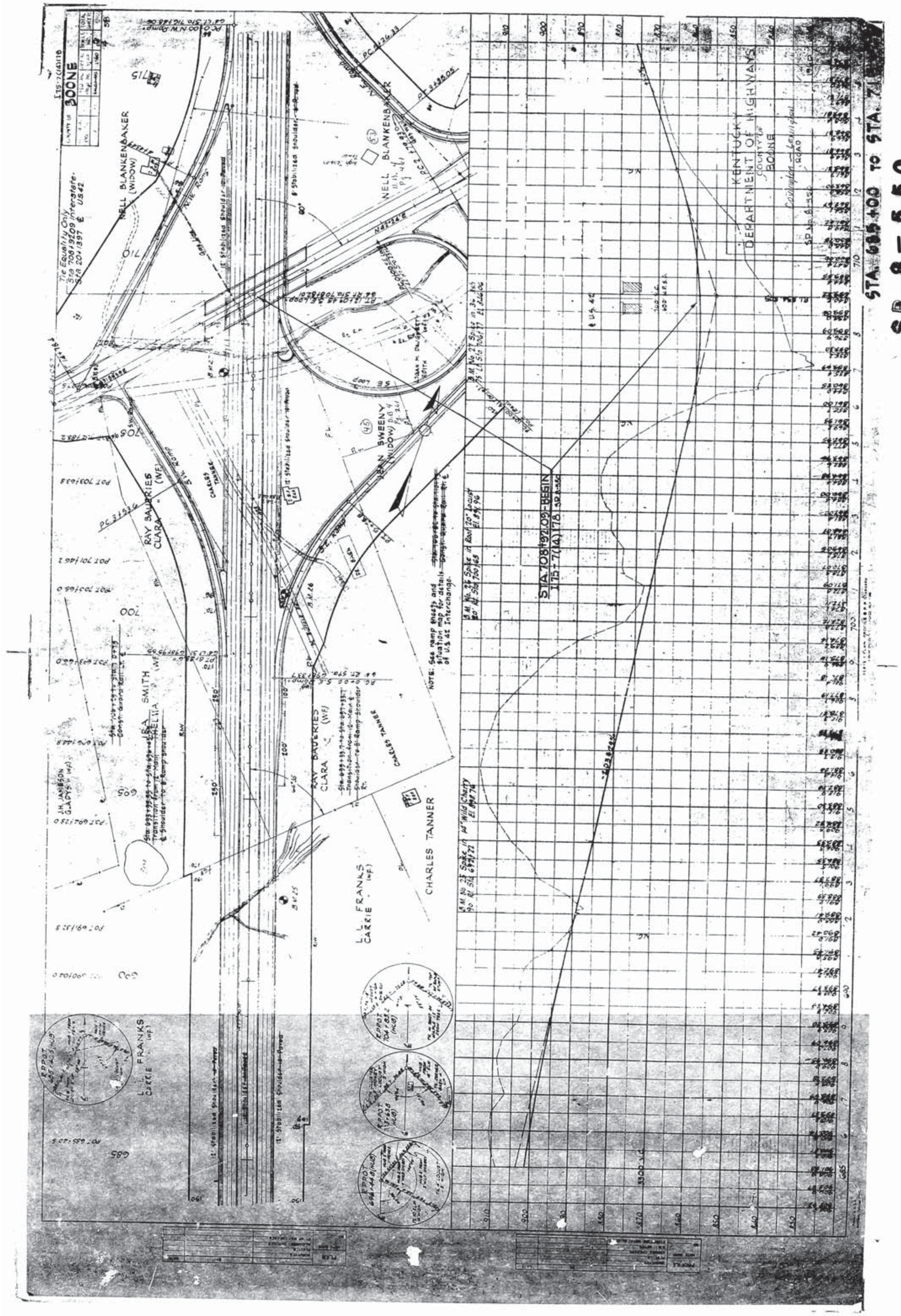
The contract for signs will be awarded prior to completion of the surfacing contract and the surfacing Contractor will be required to cooperate with the signs Contractor in every way.

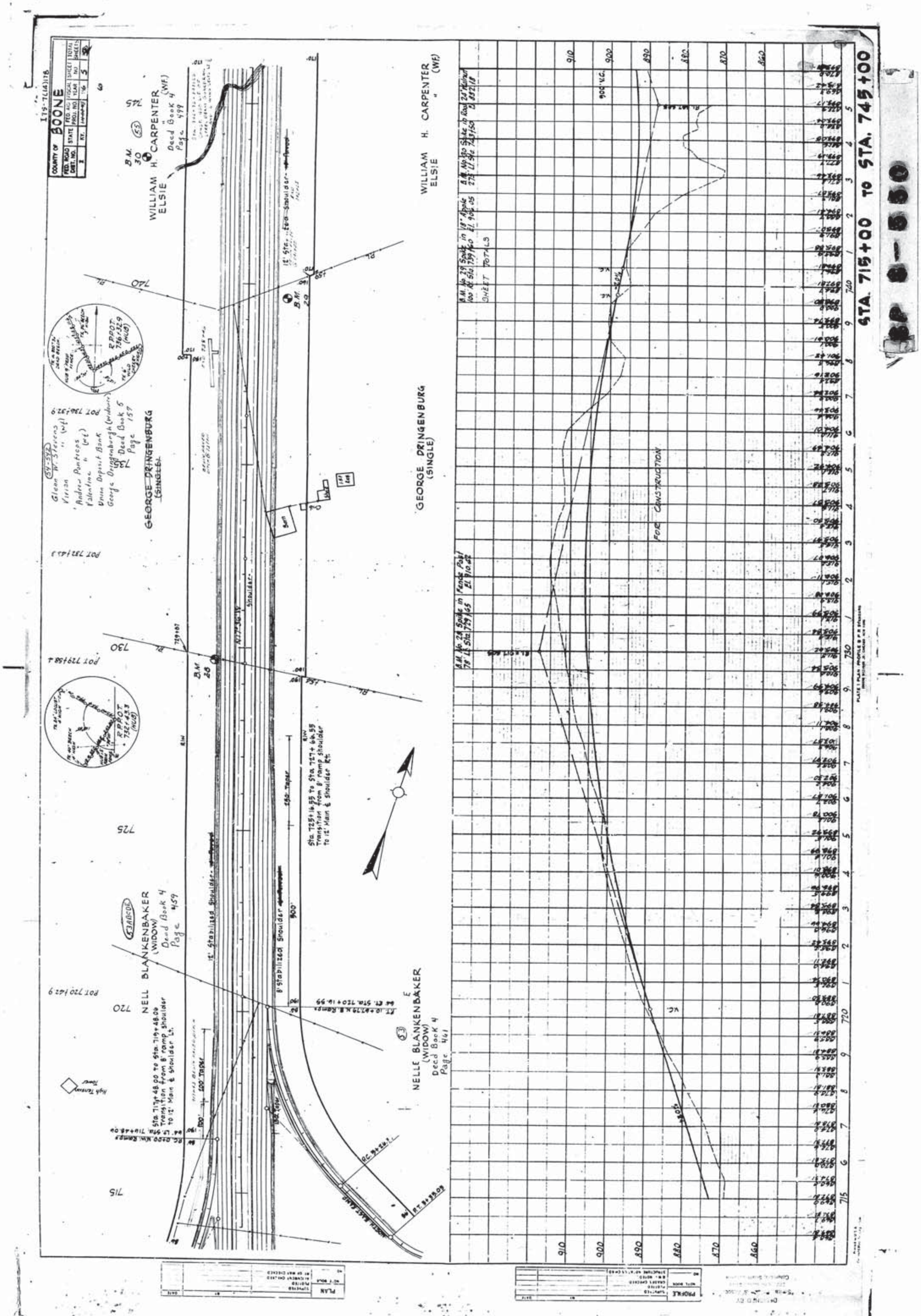
GENERAL SUMMARY

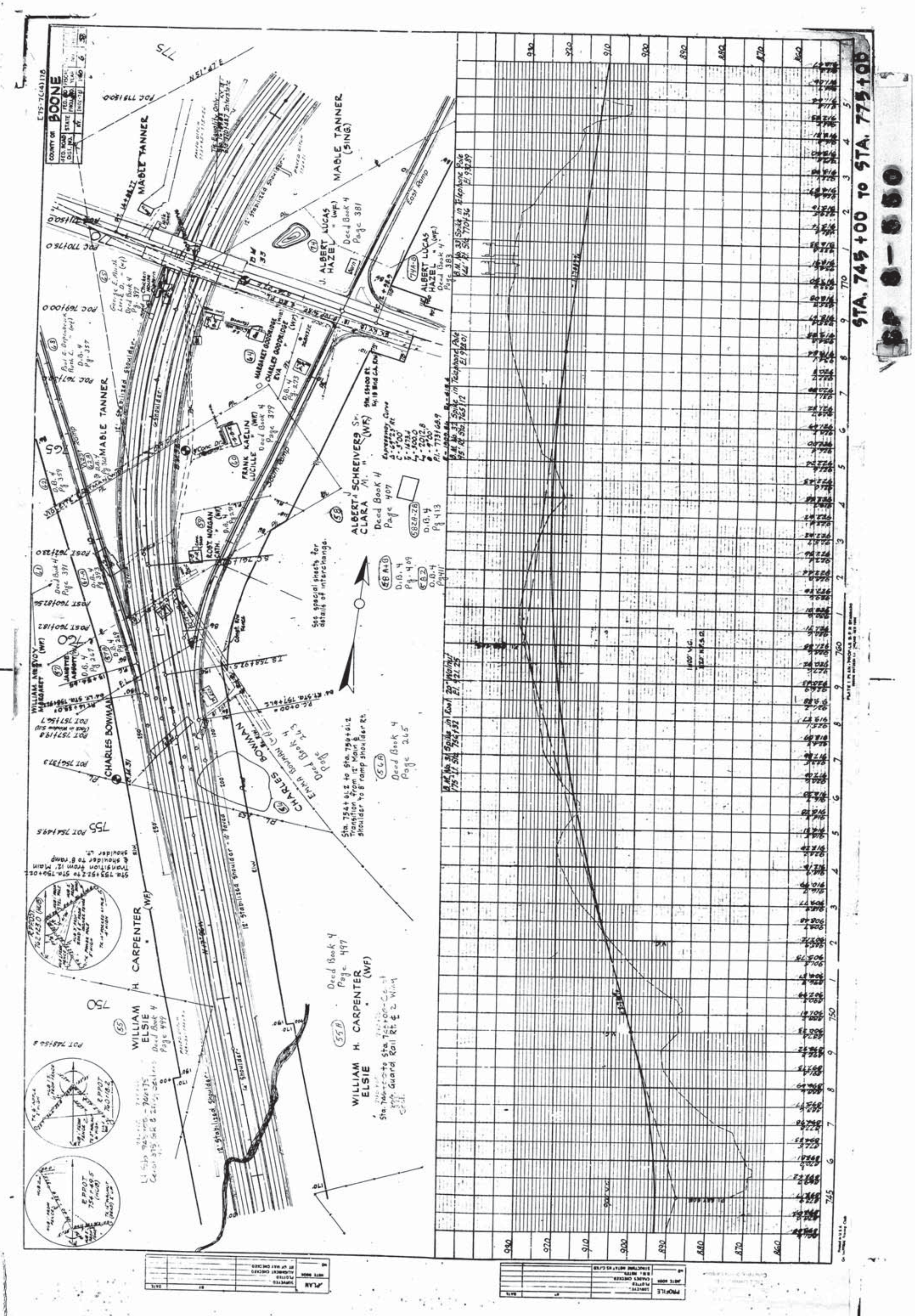
ITEM	UNIT	QUANTITY
Roadway Excavation	Cu. Yd.	6369
Borrow Excavation	Cu. Yd.	5074
Replacing Right-of-Way Fence	Lin. Ft.	100
Paved Ditch	Sq. Yd.	3000
15" Median Box Inlet	Each	1
18" Median Box Inlet	Each	1
Steel Beam Guard Rail	Lin. Ft.	8125
Guard Rail Wing Section	Each	41
Crushed Limestone, Size No 6	Ton	250
Removing Pipe	Lin. Ft.	150
Relaying Pipe	Lin. Ft.	150
Removing and Resetting Guard Rail	Lin. Ft.	1204
Structure Excavation (Unclassified)	Cu. Yd	400
Final Dressing	100' Sta.	169.1
Extra Compaction	100' Sta.	338.2
Class 'A' Concrete	Cu. Yd	3.0
Seeding and Protection with Blown-on Bituminous Treated Straw Mulch (Method 3) ②	Sq. Yd	125880
Agricultural Ground Limestone	Ton	100.9
12-12-12 Granulated Commercial Fertilizer	Ton	13.5
Sodding ②	Sq. Yd.	23624

② Includes quantities for Spot Seeding and Sod Repair Work.

SP 8-550


BOONE
KENTUCKY
DEPARTMENT OF HIGHWAYS
STA. 685+00 TO STA. 71
SP 8-650
CHARLES TANNER
NOTE: See ramp sheets and situation map for details of U.S. 42 Interchange.


BOONE
STA. 715+00 TO STA. 745+00
WILLIAM H. CARPENTER (WF)
ELSIE
GEORGE DRINGENBURG (SINGLE)
NELLE BLANKENBAKER (WIDOW)
FOR CONSTRUCTION
PLAN
PROFILE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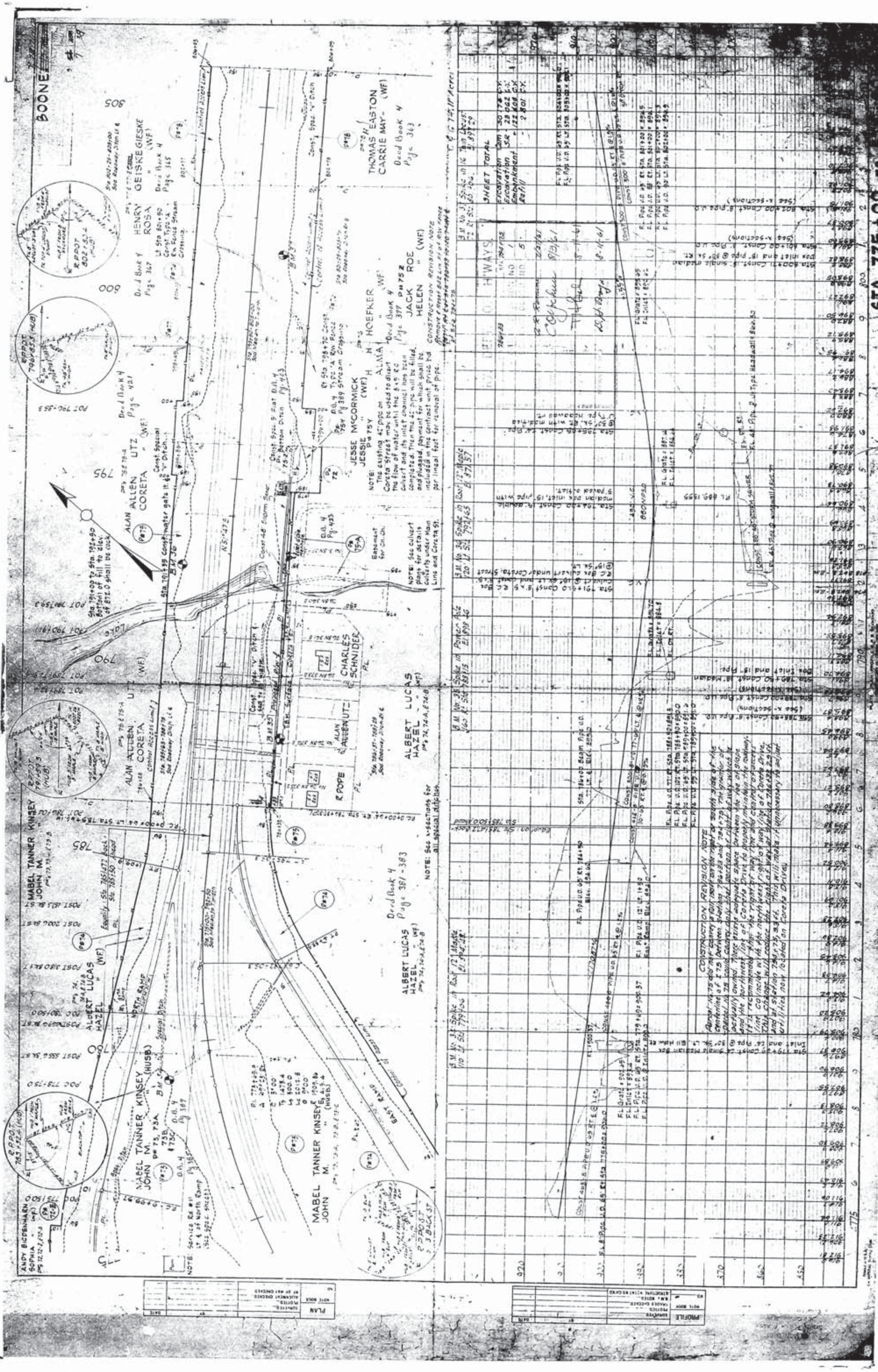
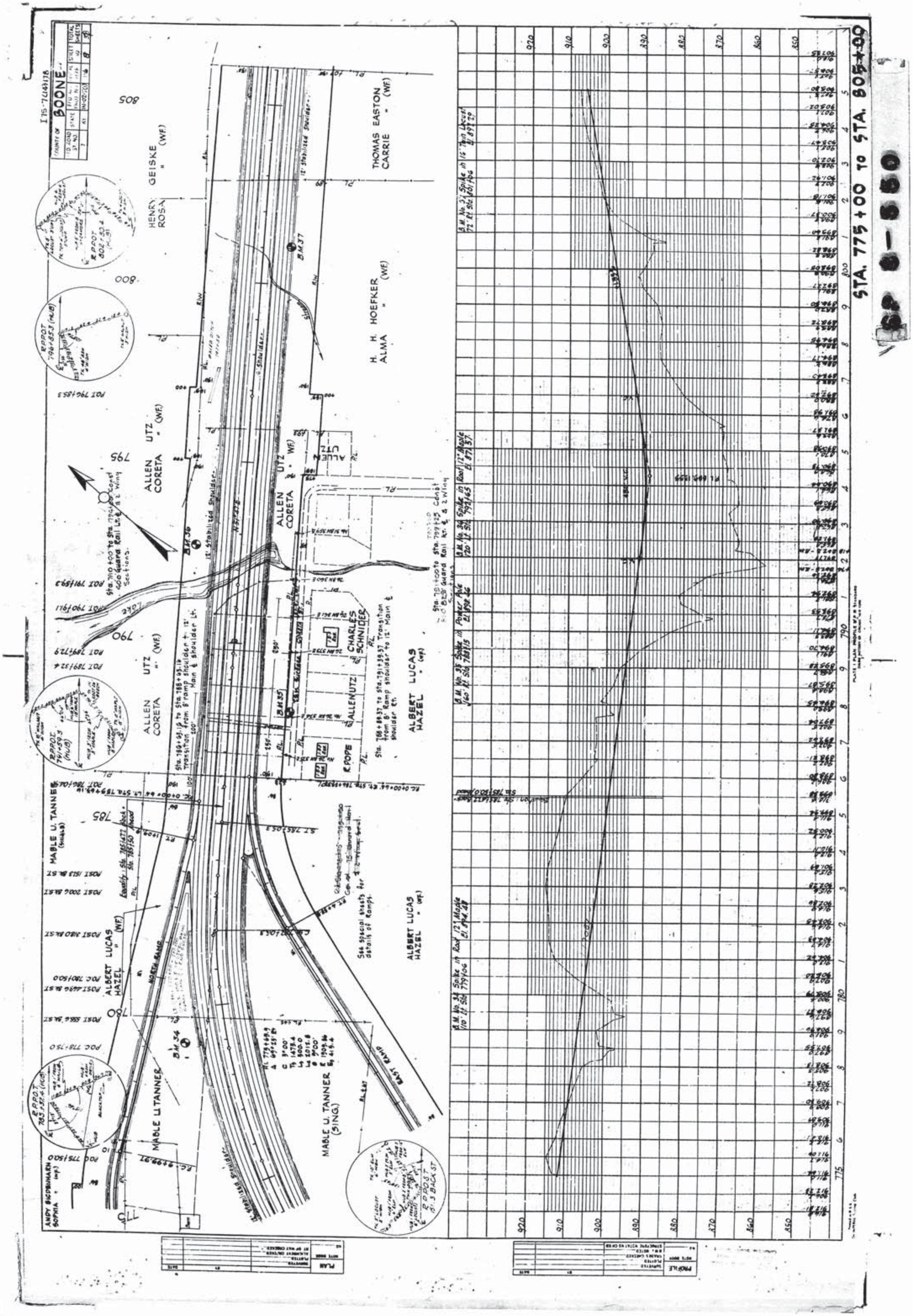
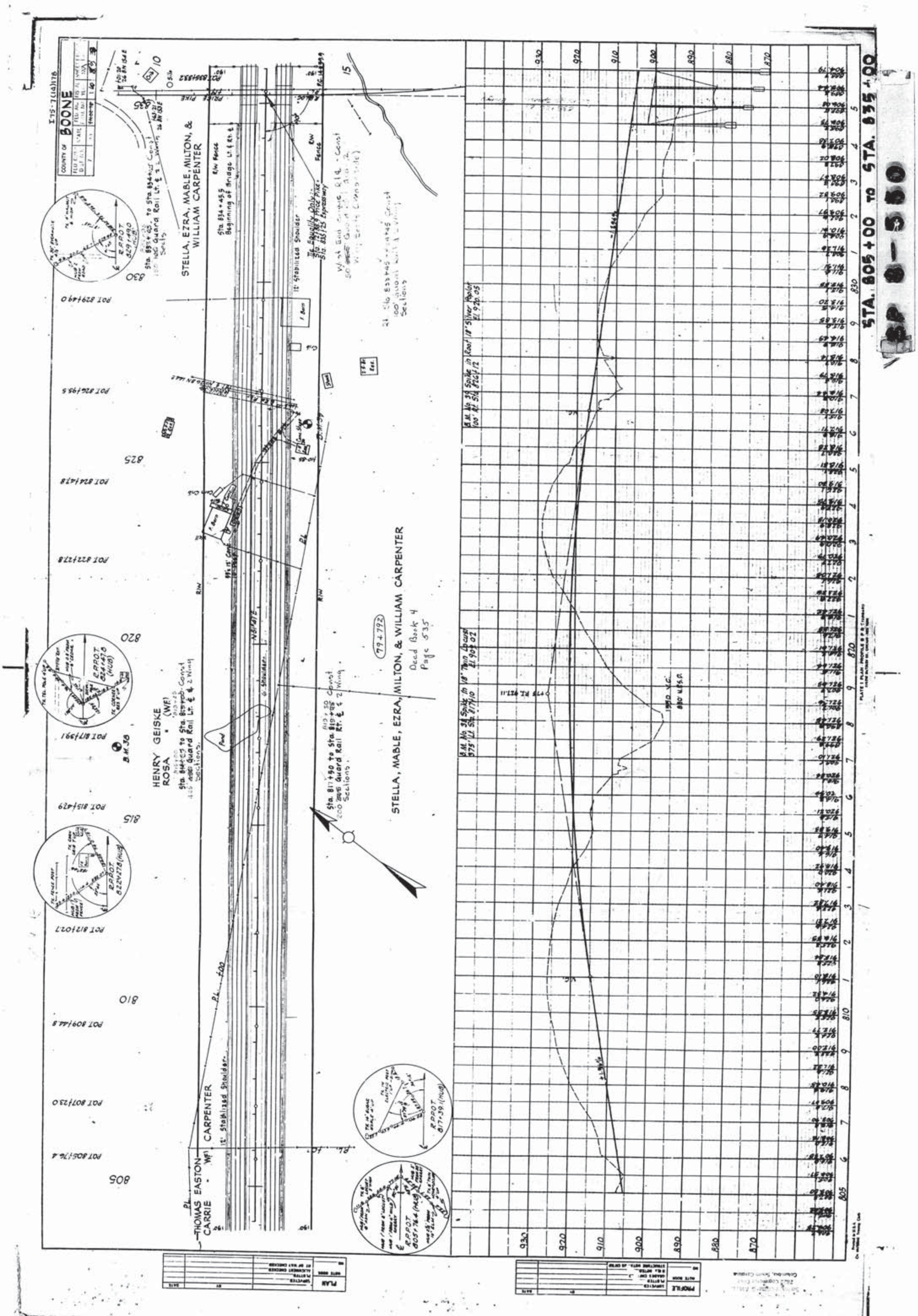
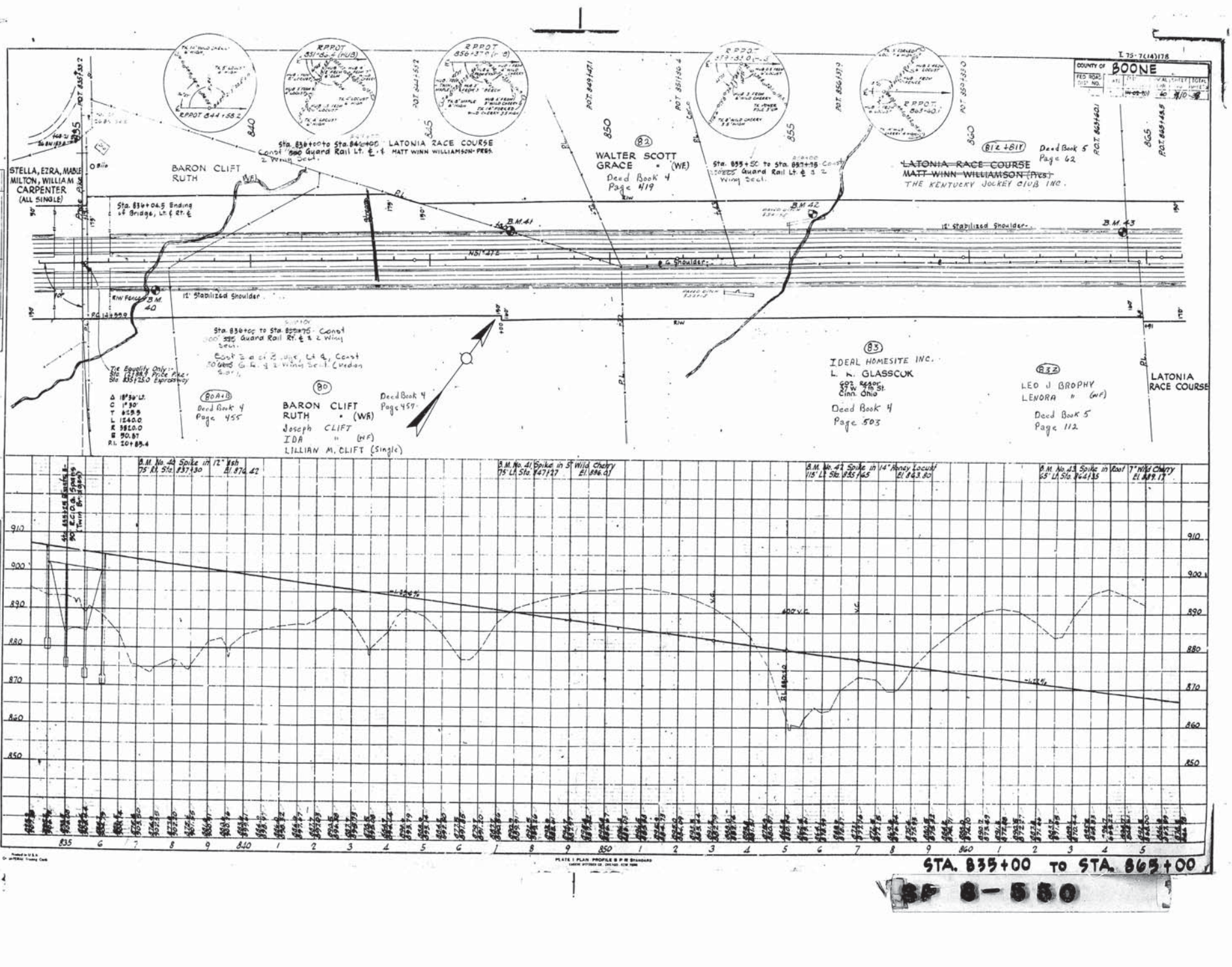
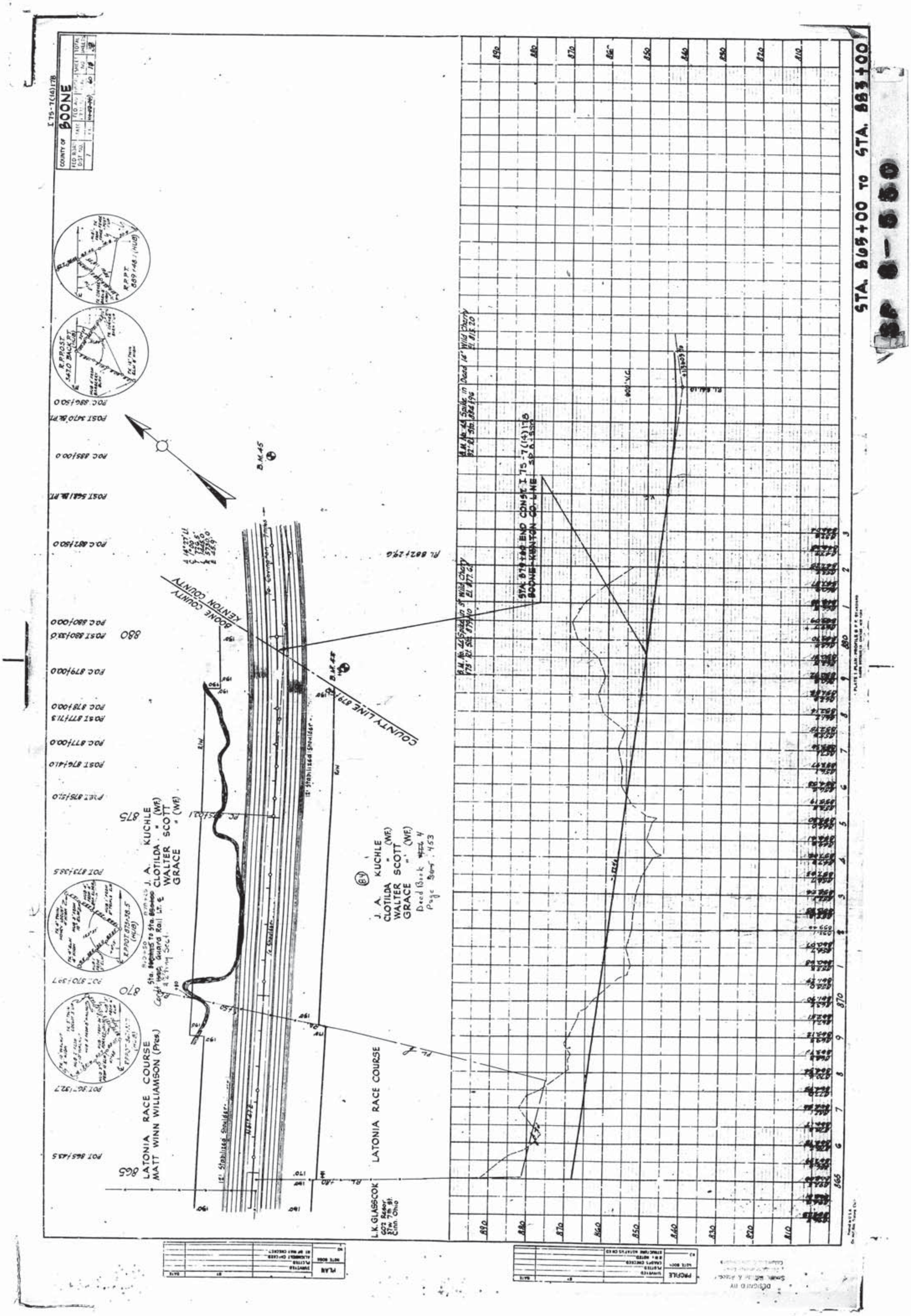

BOONE
SP 8-550
STA. 775+00
PLAN
PROFILE


STA. 775+00 TO STA. 805+00
BOONE
THOMAS EASTON
CARRIE
HENRY GEISKE
ROSA
H. H. HOEFKER
ALMA
ALLEN UTZ
CORETA
CHARLES SCHNIDER
ALBERT LUCAS
HAZEL
MABLE U. TANNER
R. POPE
BM 37
BM 36
BM 35
BM 34
NORTH RAMP
EAST RAMP
12' Stabilized Shoulder
See special sheets for details of Ramps.
PLAN
PROFILE


STA. 805+00 TO STA. 835+00
BOONE
STELLA, EZRA, MABLE, MILTON, & WILLIAM CARPENTER
STELLA, MABLE, EZRA, MILTON, & WILLIAM CARPENTER
Deed Book 4
Page 535
HENRY GEISKE
ROSA
THOMAS EASTON
CARRIE
CARPENTER
PLAN
PROFILE

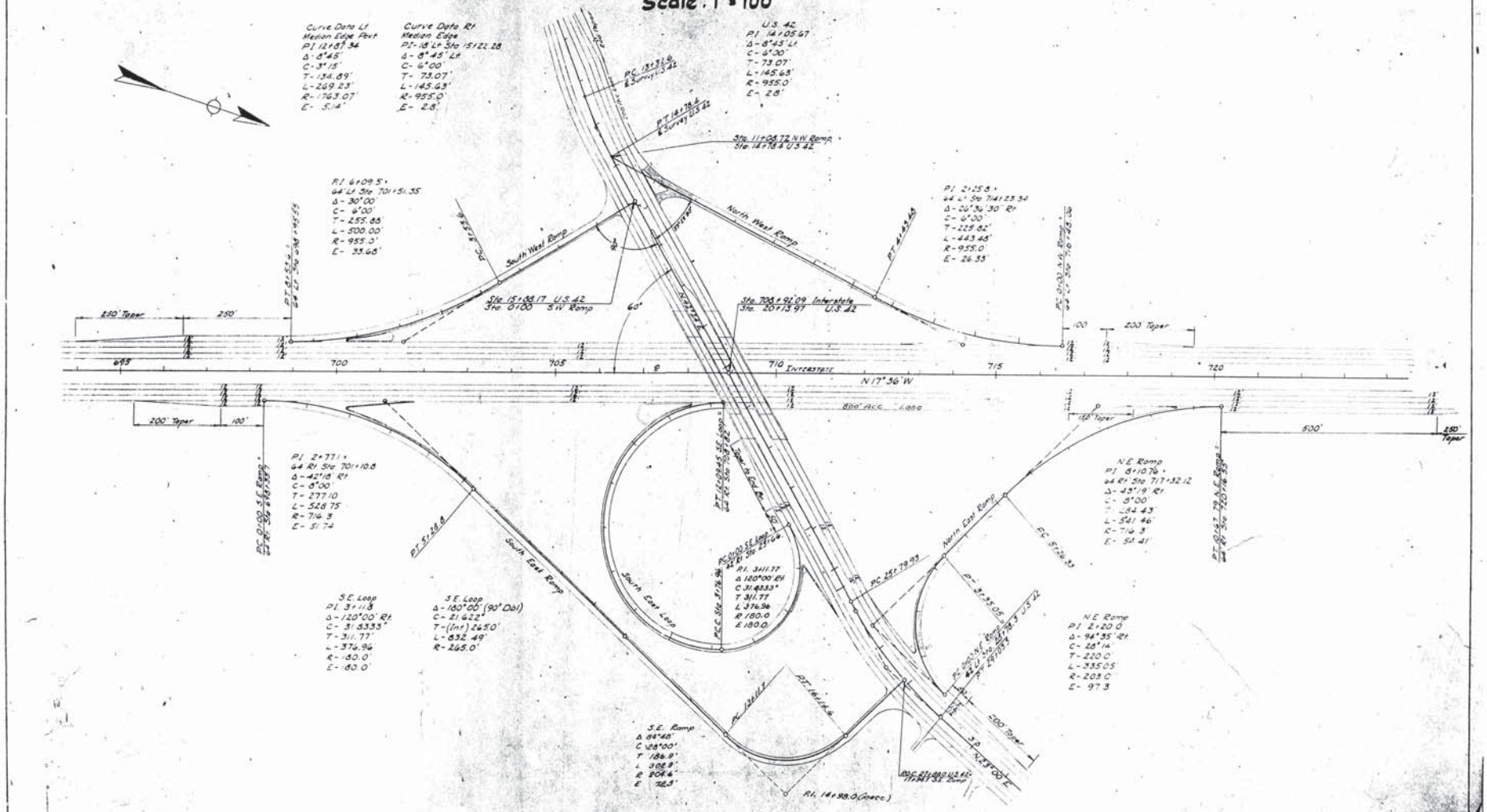

I 75-7(14)178
COUNTY OF BOONE
STELLA, EZRA, MABLE MILTON, WILLIAM M. CARPENTER (ALL SINGLE)
BARON CLIFT RUTH (WF)
Sta. 836+04.5 Ending of Bridge, Lt. & Rt. ℄
Sta. 836+00 to Sta. 846+00 LATONIA RACE COURSE Const 6000 Guard Rail Lt. ℄ & 2 Wing Sect.
MATT WINN WILLIAMSON Pres.
(82) WALTER SCOTT GRACE (WF) Deed Book 4 Page 419
Sta. 855+50 to Sta. 857+75 Const 2000 Guard Rail Lt. ℄ & 2 Wing Sect.
(81Z+81Y) Deed Book 5 Page 62
LATONIA RACE COURSE
MATT WINN WILLIAMSON (Pres.)
THE KENTUCKY JOCKEY CLUB INC.
B.M. 40
B.M. 41
B.M. 42
B.M. 43
12' Stabilized Shoulder
N51°47'E
℄ & Shoulder
RIW Fence
PC 14+39.9
Tie Equality Only — Sta 12+38.9 Price Pike Sta 835+25.0 Expressway
Δ 18°36' Lt.
D 1°30'
T 653.9
L 1240.0
R 3820.0
E 90.87
P.I. 20+85.4
(80A+B) Deed Book 4 Page 455
(80) BARON CLIFT RUTH (WF)
Joseph CLIFT IDA (WF)
LILLIAN M. CLIFT (Single)
Deed Book 4 Page 459
(83) IDEAL HOMESITE INC. L. N. GLASSCOK
693 Reagor 12 W. 7th St. Cinn. Ohio
Deed Book 4 Page 503
(83Z) LEO J BROPHY LENORA (WF)
Deed Book 5 Page 112
LATONIA RACE COURSE
B.M. No 40 Spike in 12" Ash 75' Rt. Sta. 837+30 El. 874.42
B.M. No 41 Spike in 5" Wild Cherry 75' Lt. Sta. 847+27 El. 886.01
B.M. No 42 Spike in 14" Honey Locust 115' Lt. Sta. 835+65 El. 843.80
B.M. No 43 Spike in Root 65' Lt. Sta. 864+35 7" Wild Cherry El. 899.17
-1.84%
-1.22%
400' V.C.
V.C.
910
900
890
880
870
860
850
835 6 7 8 9 840 1 2 3 4 5 6 1 8 9 850 1 2 3 4 5 6 7 8 9 860 1 2 3 4 5
PLATE 1 PLAN PROFILE B P R Standards
STA. 835+00 TO STA. 865+00
BF 8-550


BOONE
STA. 865+00 TO STA. 883+00
LATONIA RACE COURSE
MATT WINN WILLIAMSON (Pres.)
J. A. KUCHLE
CLOTILDA " (WF)
WALTER SCOTT
GRACE " (WF)
KENTON COUNTY
BOONE COUNTY
COUNTY LINE 879+10
STA. 879+10 END CONST. I 75-7(14)178
BOONE-KENTON CO. LINE
L.K. GLASSCOK
PLAN
PROFILE

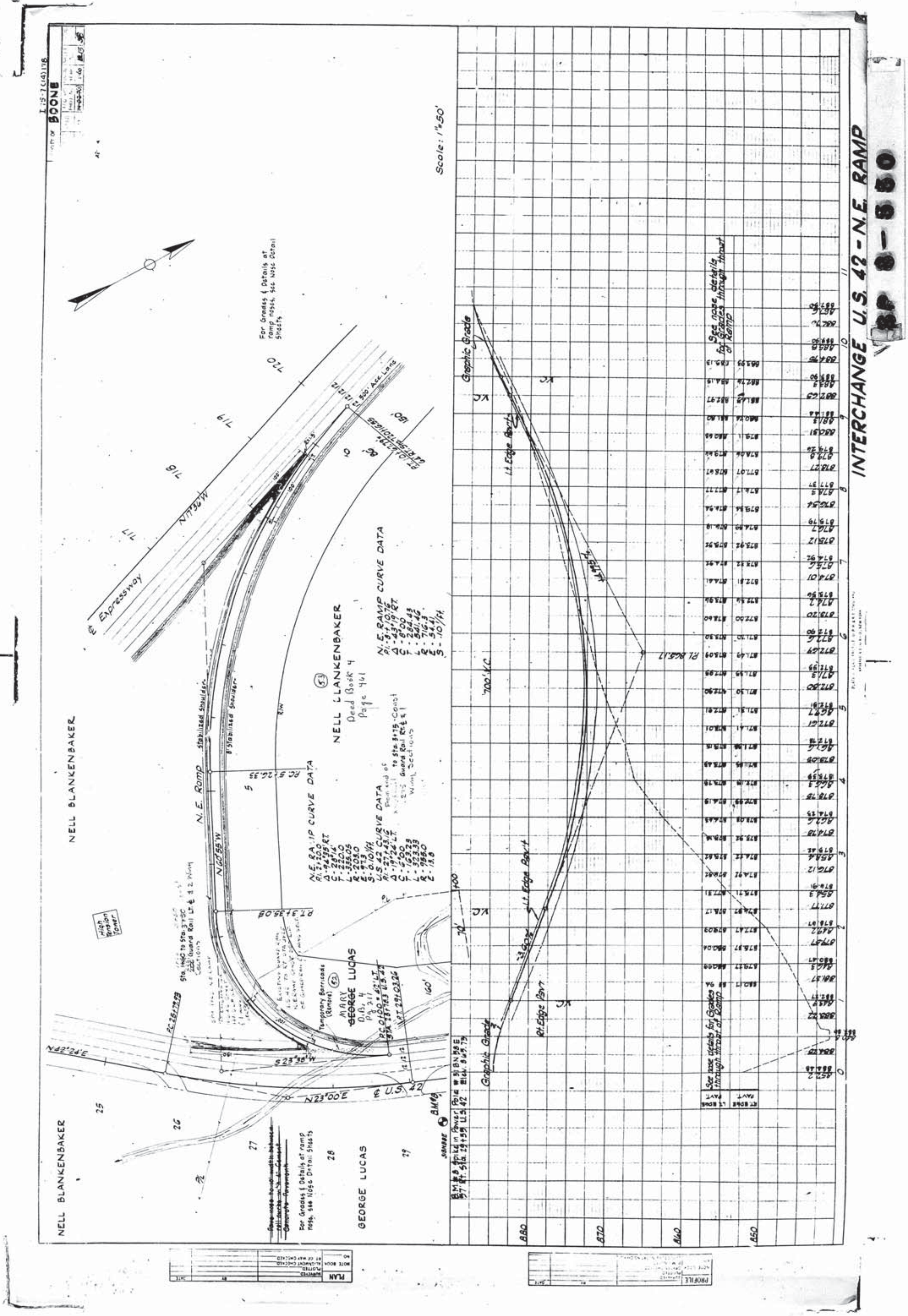
E 75-7(14)178

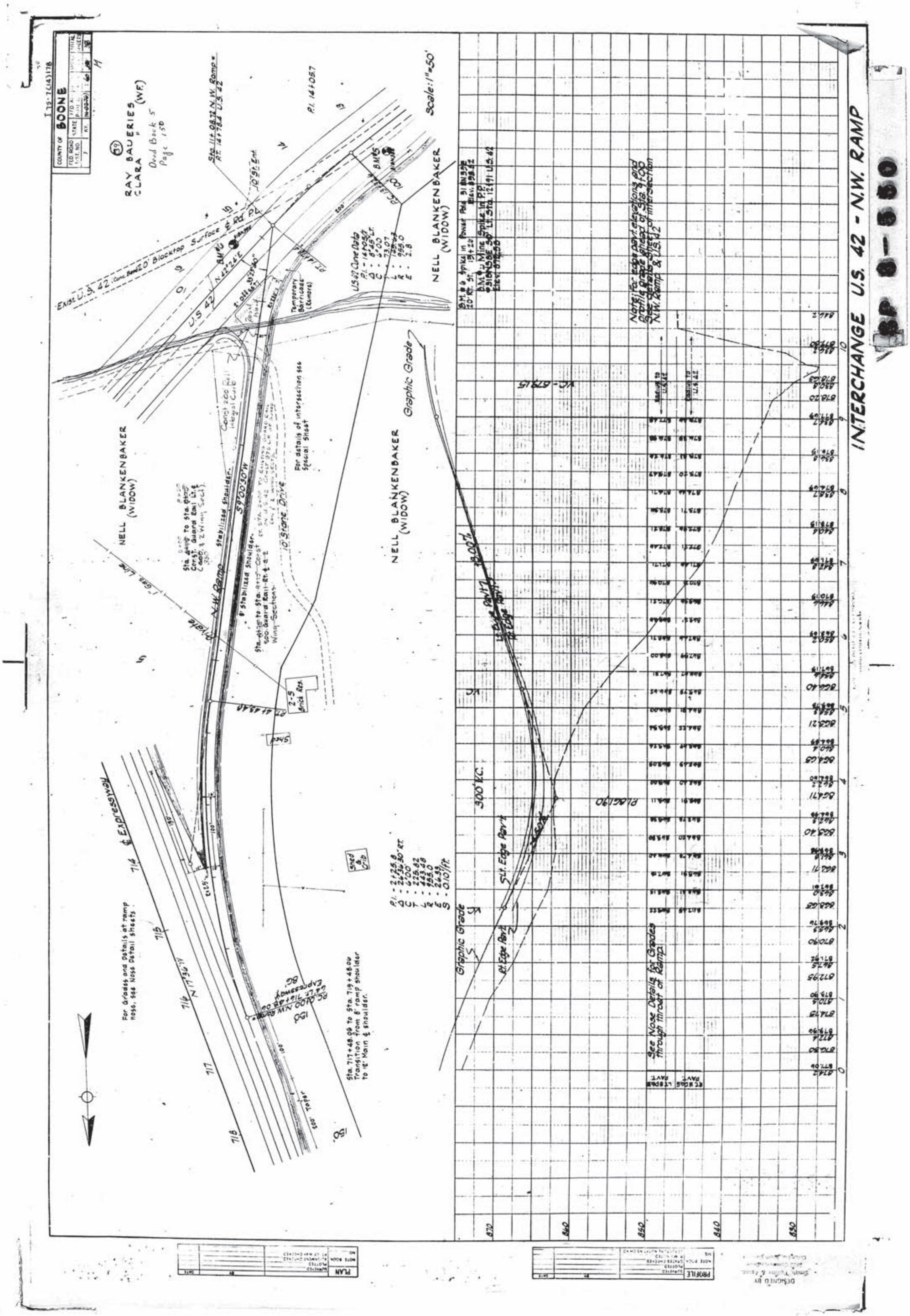
COUNTY OF BOONE					
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
7	KY.	[illegible]	1961	209	45

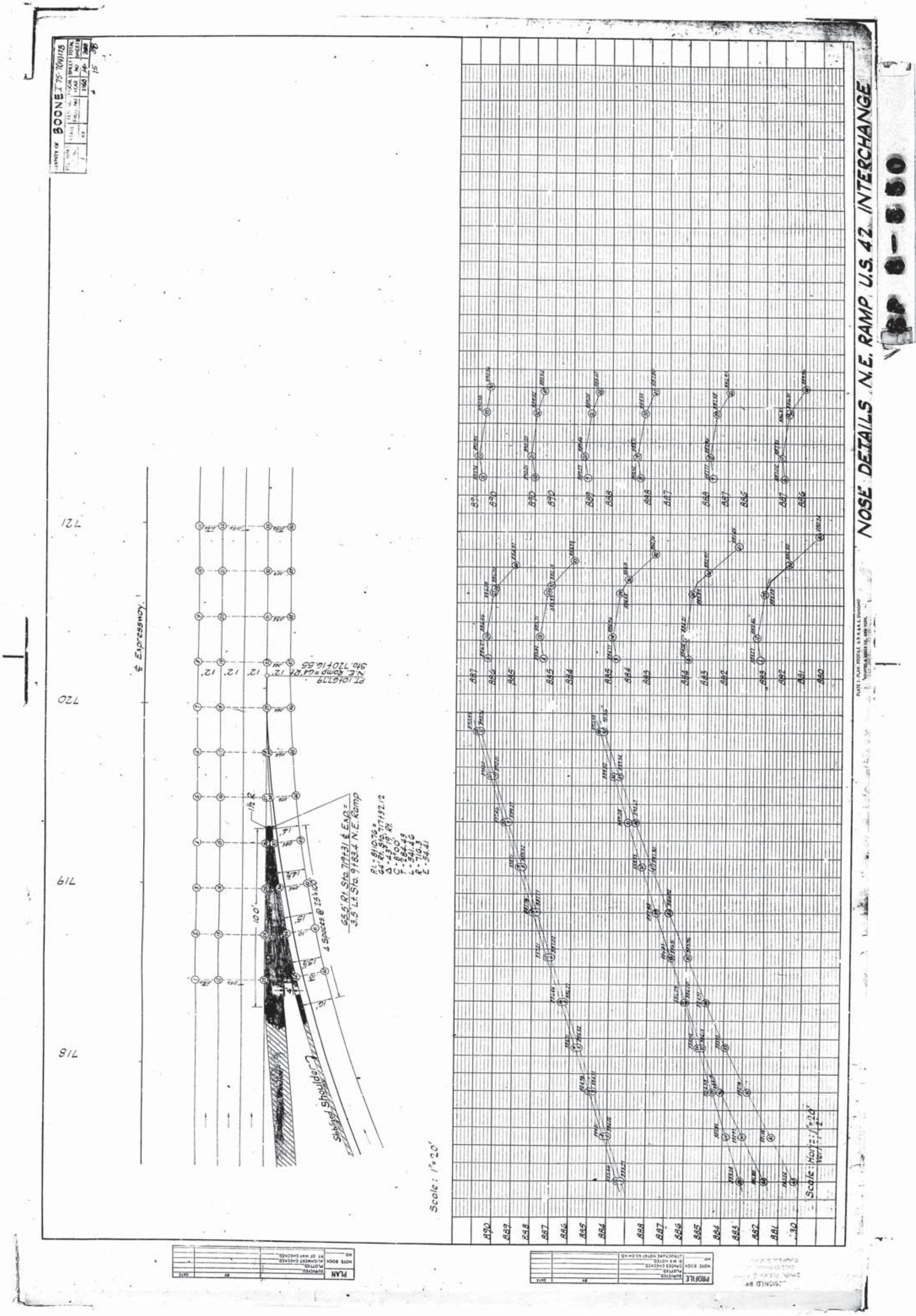
SITUATION MAP
FOR PROPOSED INTERCHANGE
U.S. 25 INTERSTATE and U.S. 42
Scale: 1" = 100'

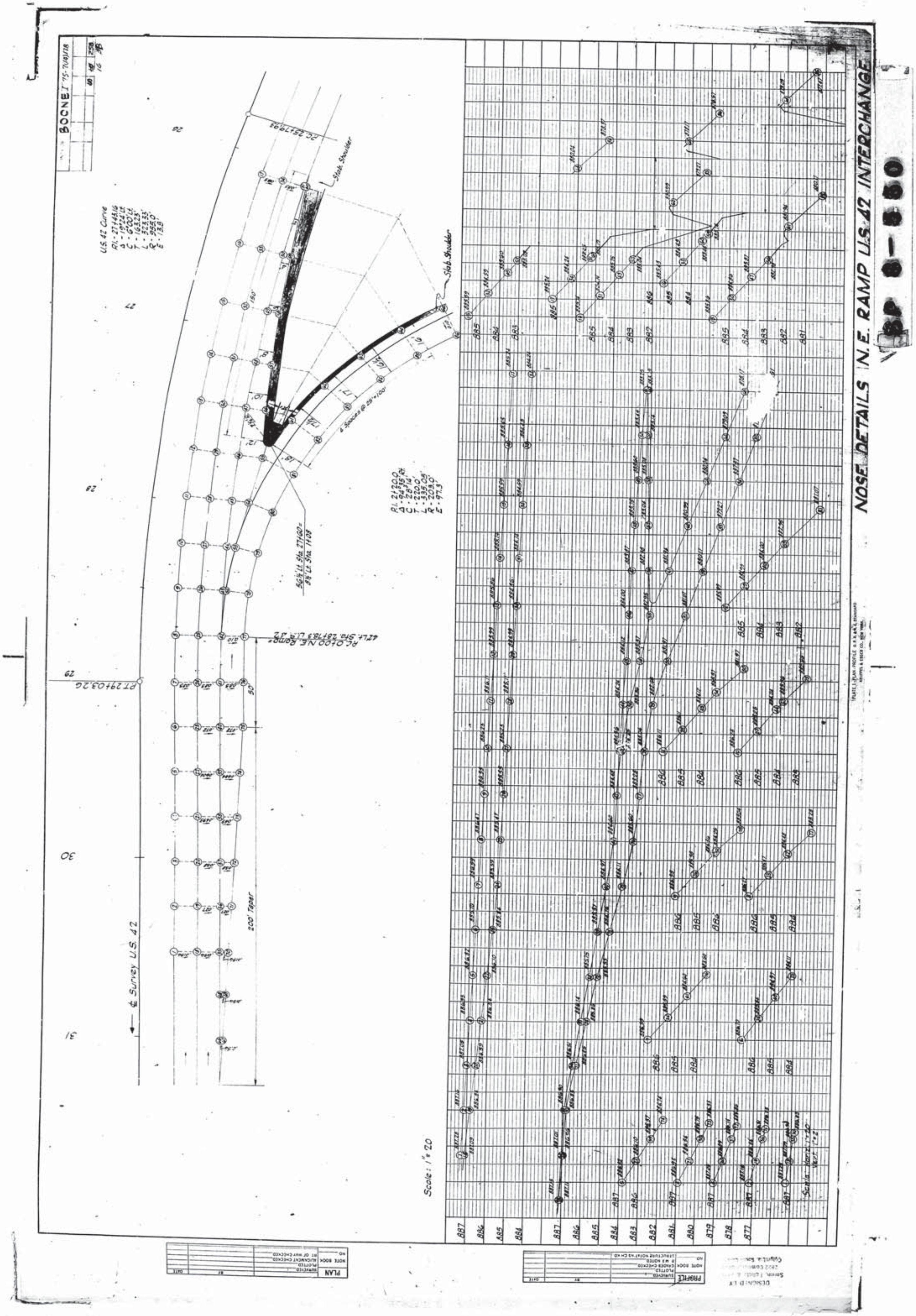


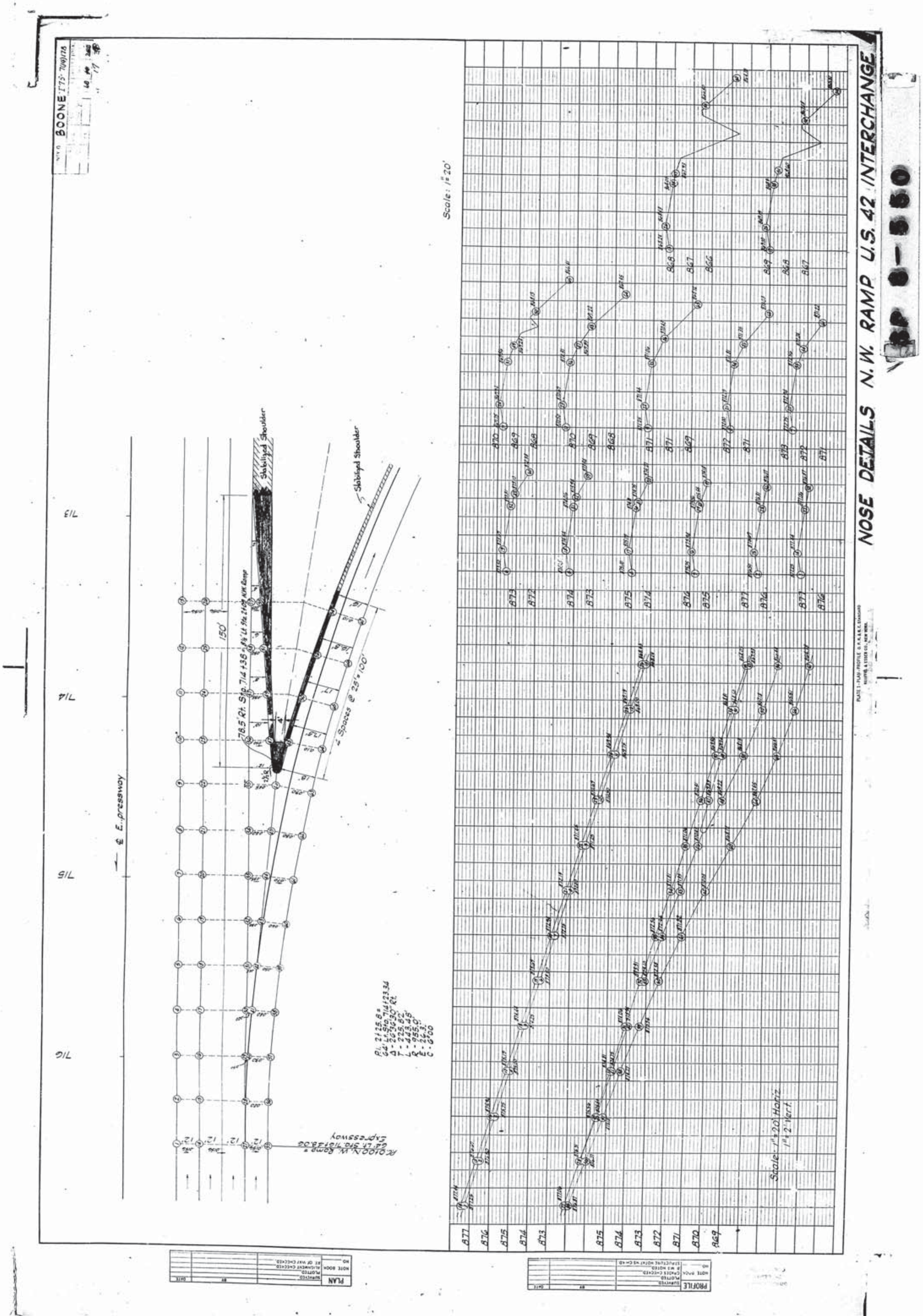
SP 8-550

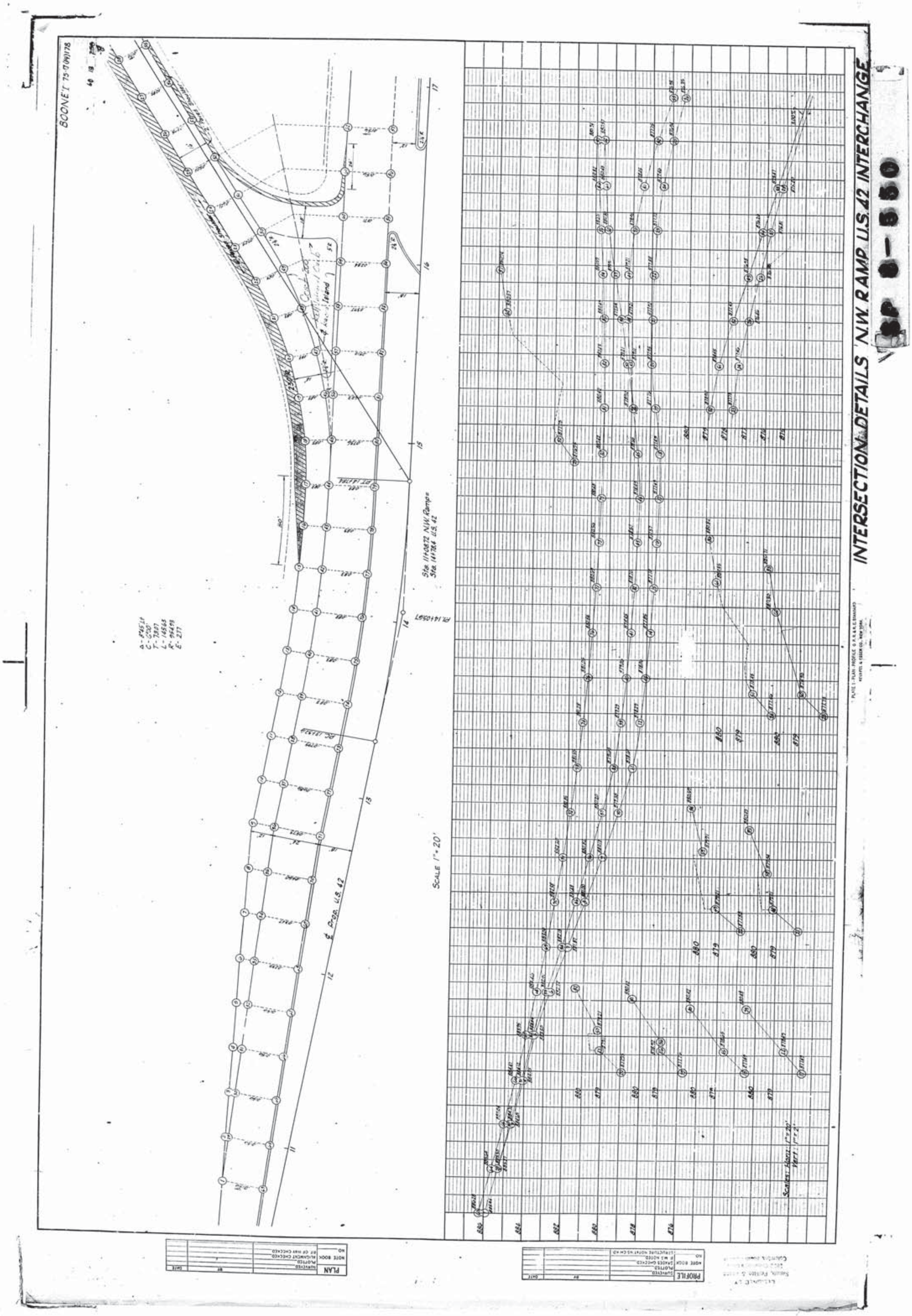

INTERCHANGE U.S. 42 - N.E. RAMP
BOONE
Scale: 1"=50'
NELL BLANKENBAKER
GEORGE LUCAS
N.E. Ramp
Expressway
U.S. 42
N.E. RAMP CURVE DATA
Graphic Grade
Lt. Edge Pavt.
Rt. Edge Pavt.
PLAN
PROFILE

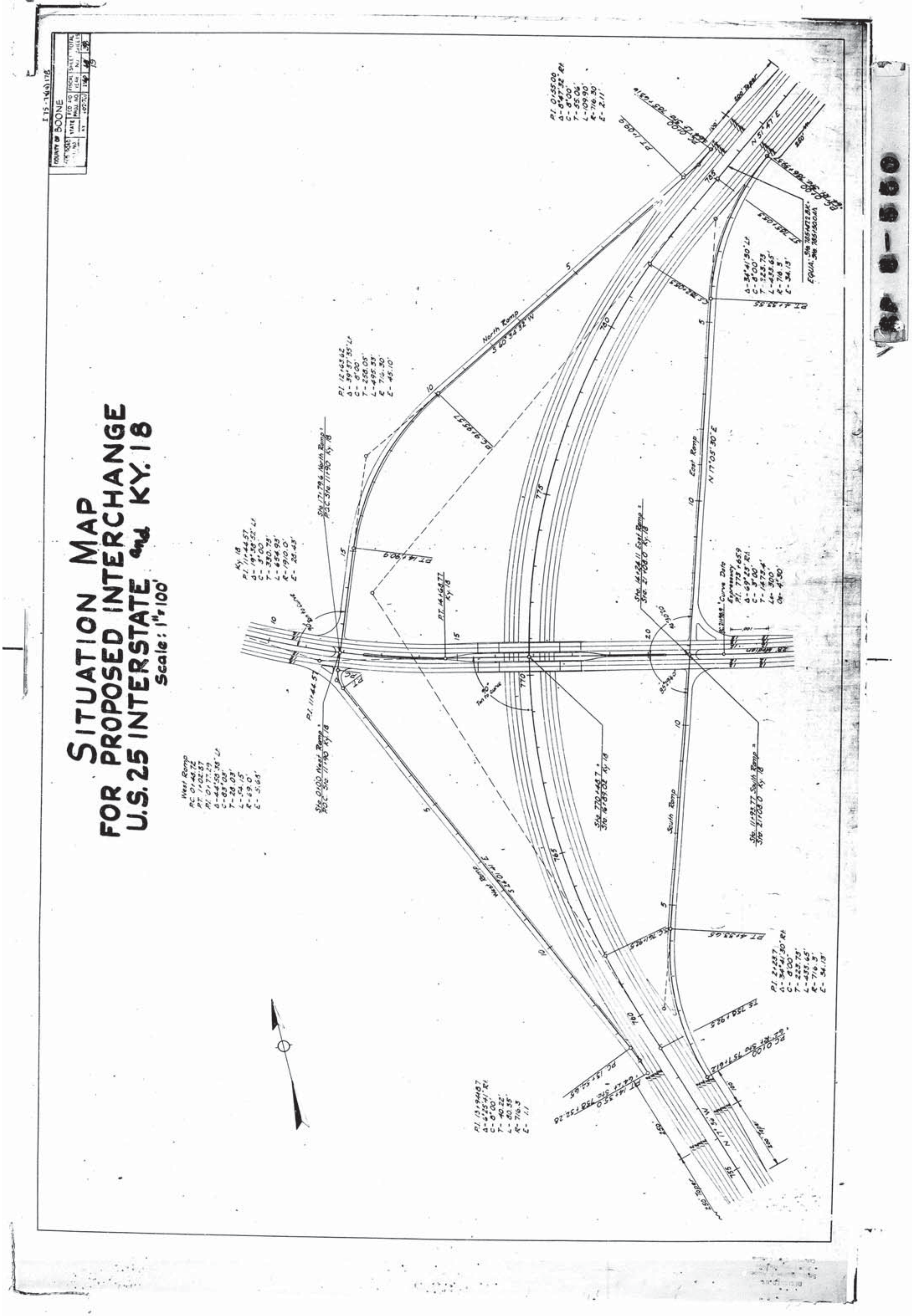

INTERCHANGE U.S. 42 - N.W. RAMP
BOONE
RAY BAUERIES
CLARA
NELL BLANKENBAKER (WIDOW)
NELL BLANKENBAKER (WIDOW)
NELL BLANKENBAKER (WIDOW)
Scale: 1"=50'
N.W. Ramp
Expressway
Graphic Grade
Graphic Grade
300' V.C.
PLAN
PROFILE

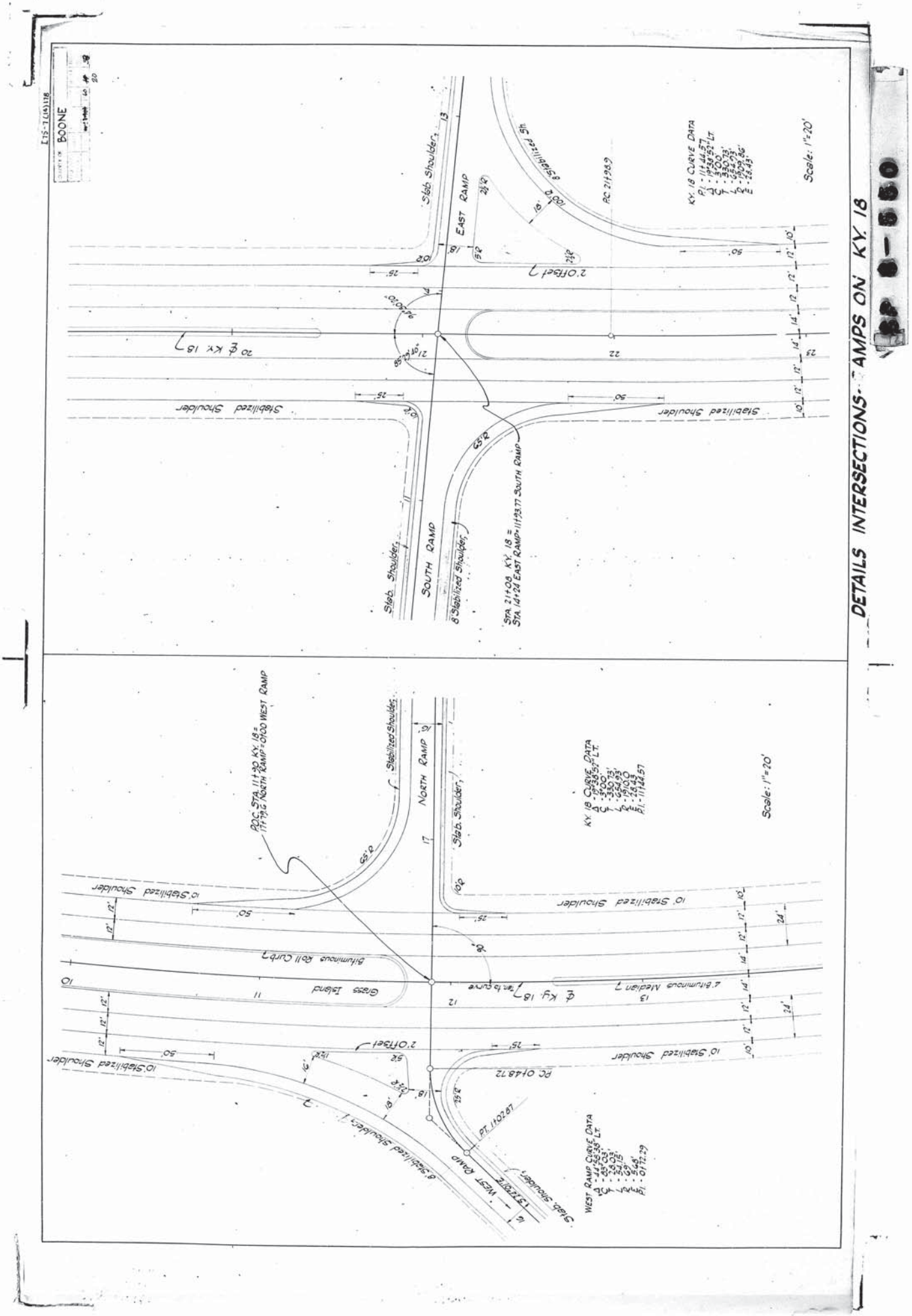

NOSE DETAILS N.E. RAMP U.S. 42 INTERCHANGE
BOONE I 75-7(4)178
℄ Expressway
Stabilized Shoulder
Scale: 1"=20'
Scale: Horiz.: 1"=20'
PLAN
PROFILE

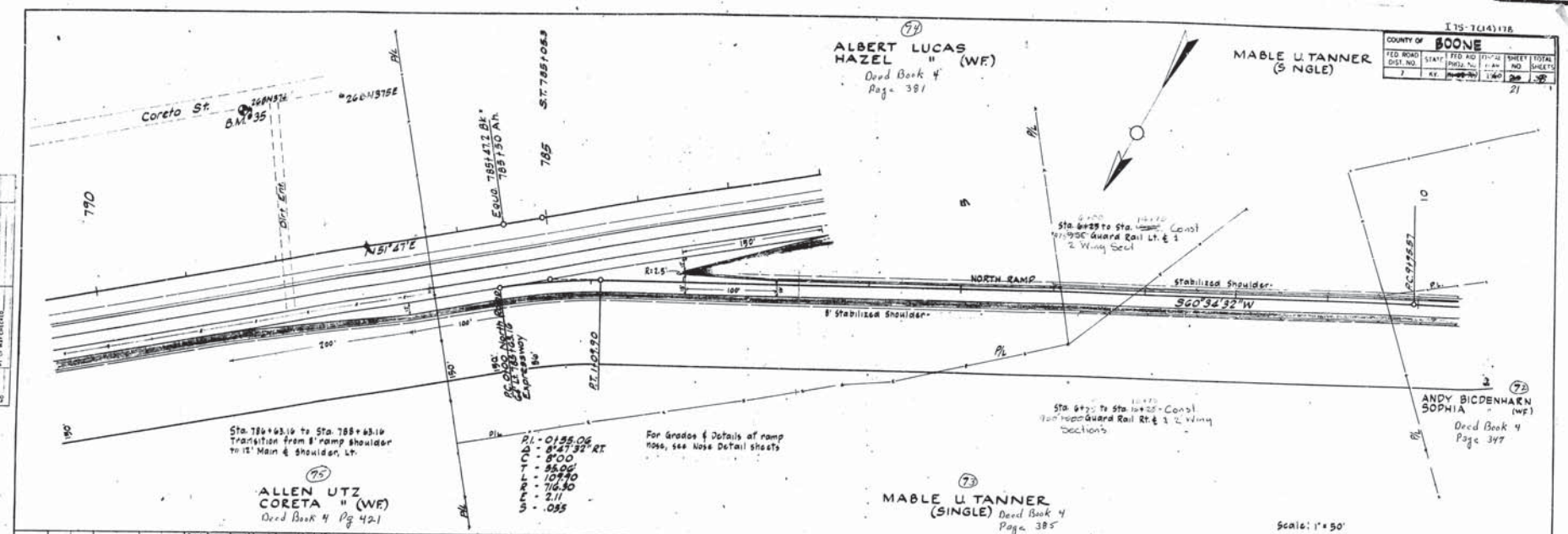

NOSE DETAILS N.E. RAMP U.S. 42 INTERCHANGE
BOONE
Slab Shoulder
Scale: 1"=20'
200' Taper
PLAN
PROFILE

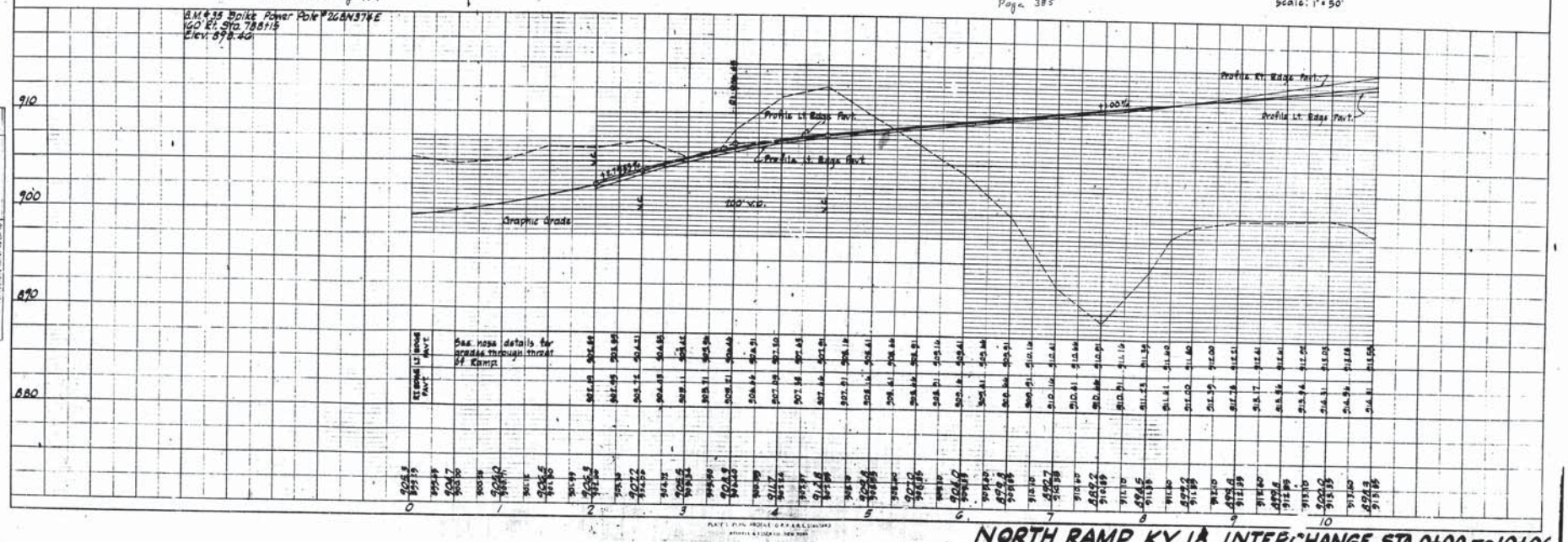

NOSE DETAILS N.W. RAMP U.S. 42 INTERCHANGE
BOONE
Scale: 1"=20'
Stabilized Shoulder
Stabilized Shoulder
4 Spaces @ 25'=100'
150'
Scale: 1"=20' Horiz.
1"=2' Vert.
PLAN
PROFILE


INTERSECTION DETAILS N.W. RAMP U.S. 42 INTERCHANGE
BOONE'T 75-7(41)178
SCALE 1"=20'
Sta. 111+08.72 N.W. Ramp = Sta. 147+78.4 U.S. 42
℄ Prop. U.S. 42
PLAN
PROFILE


SITUATION MAP
FOR PROPOSED INTERCHANGE
U.S. 25 INTERSTATE and KY. 18
Scale: 1"=100'
North Ramp
East Ramp
South Ramp
West Ramp

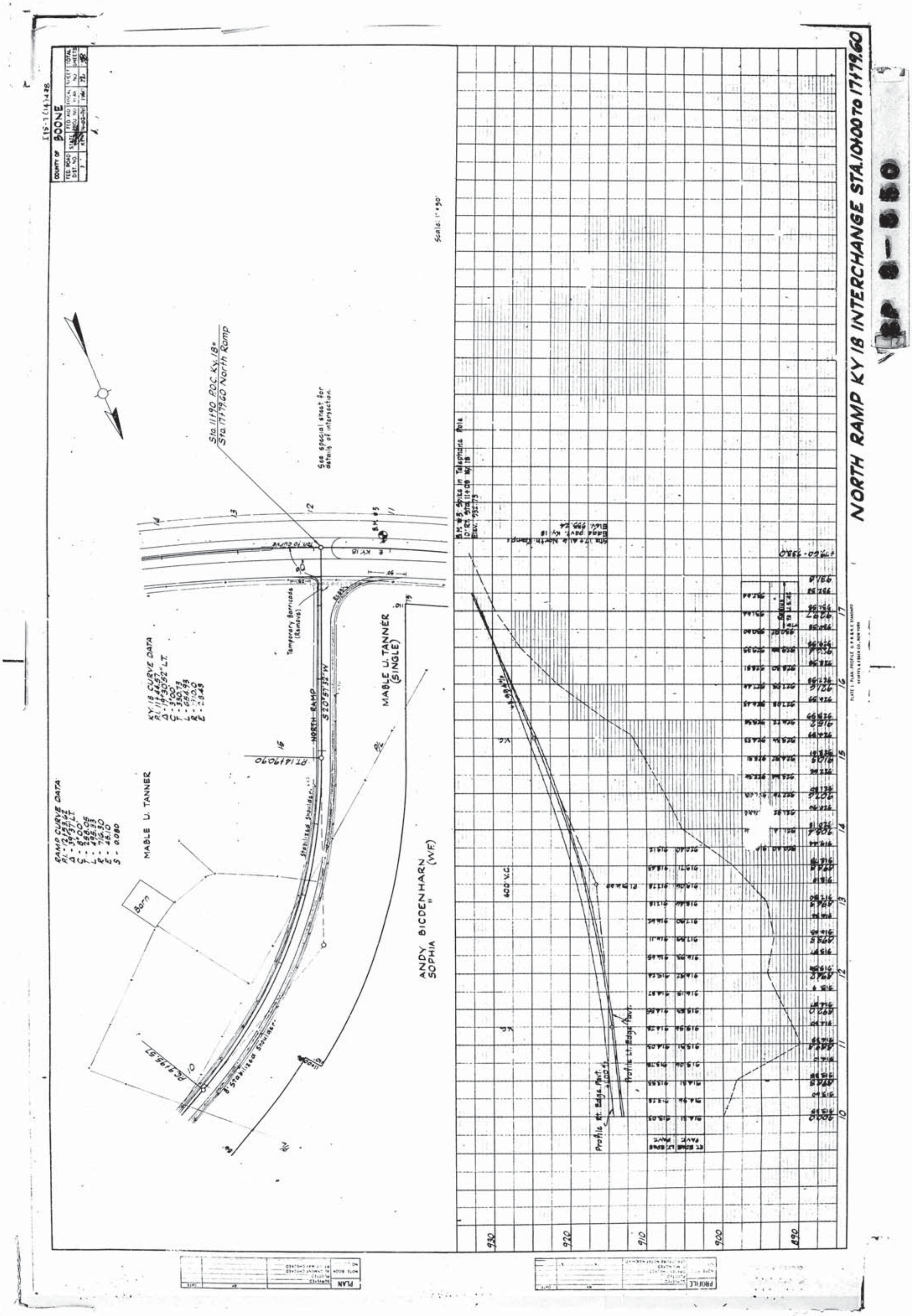

DETAILS INTERSECTIONS - RAMPS ON KY. 18
Scale: 1"=20'
EAST RAMP
SOUTH RAMP
NORTH RAMP
WEST RAMP
Stabilized Shoulder
Slab Shoulder
Grass Island
Bituminous Roll Curb
℄ Bituminous Median
℄ Ky. 18
KY. 18 CURVE DATA
WEST RAMP CURVE DATA
BOONE

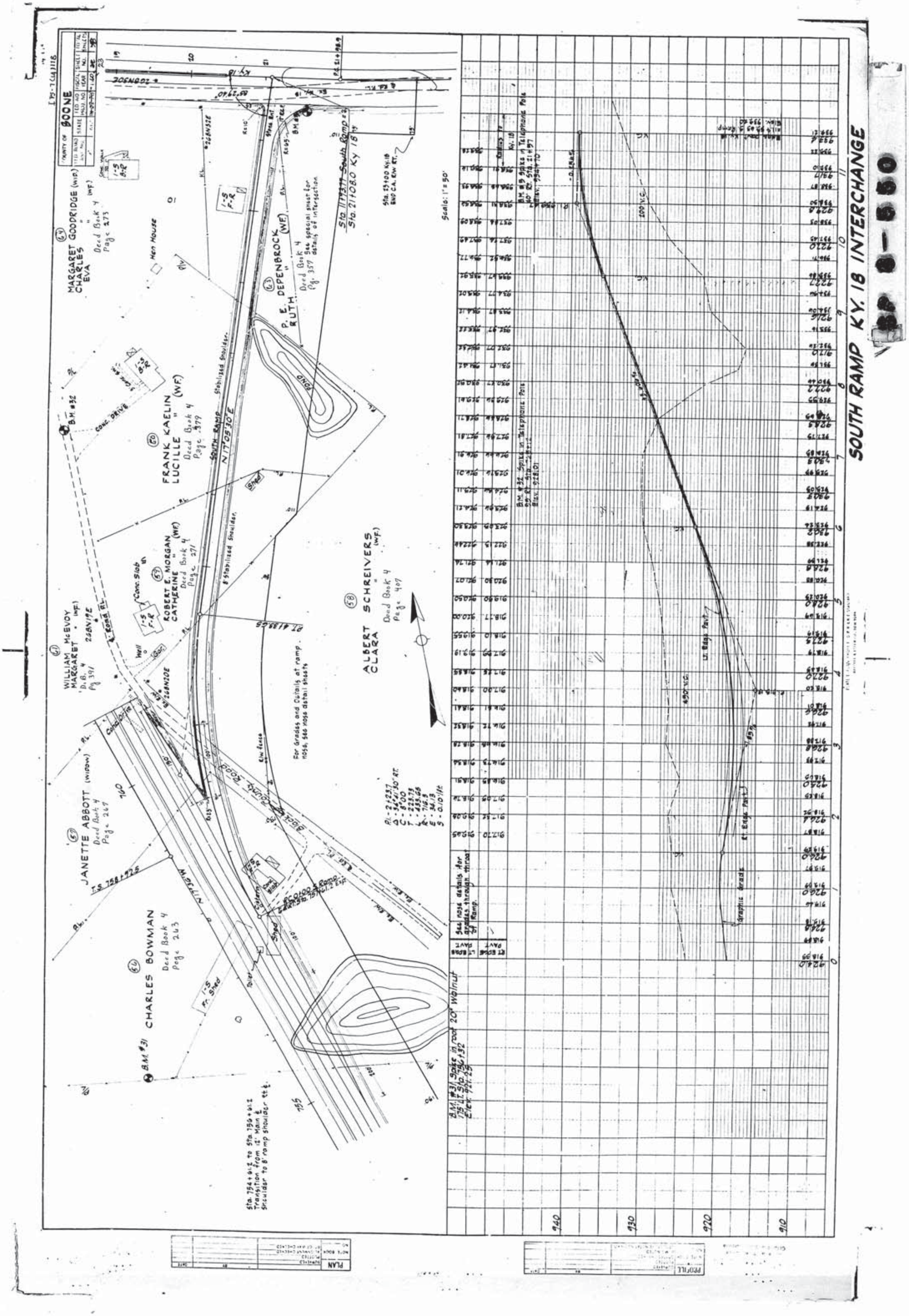


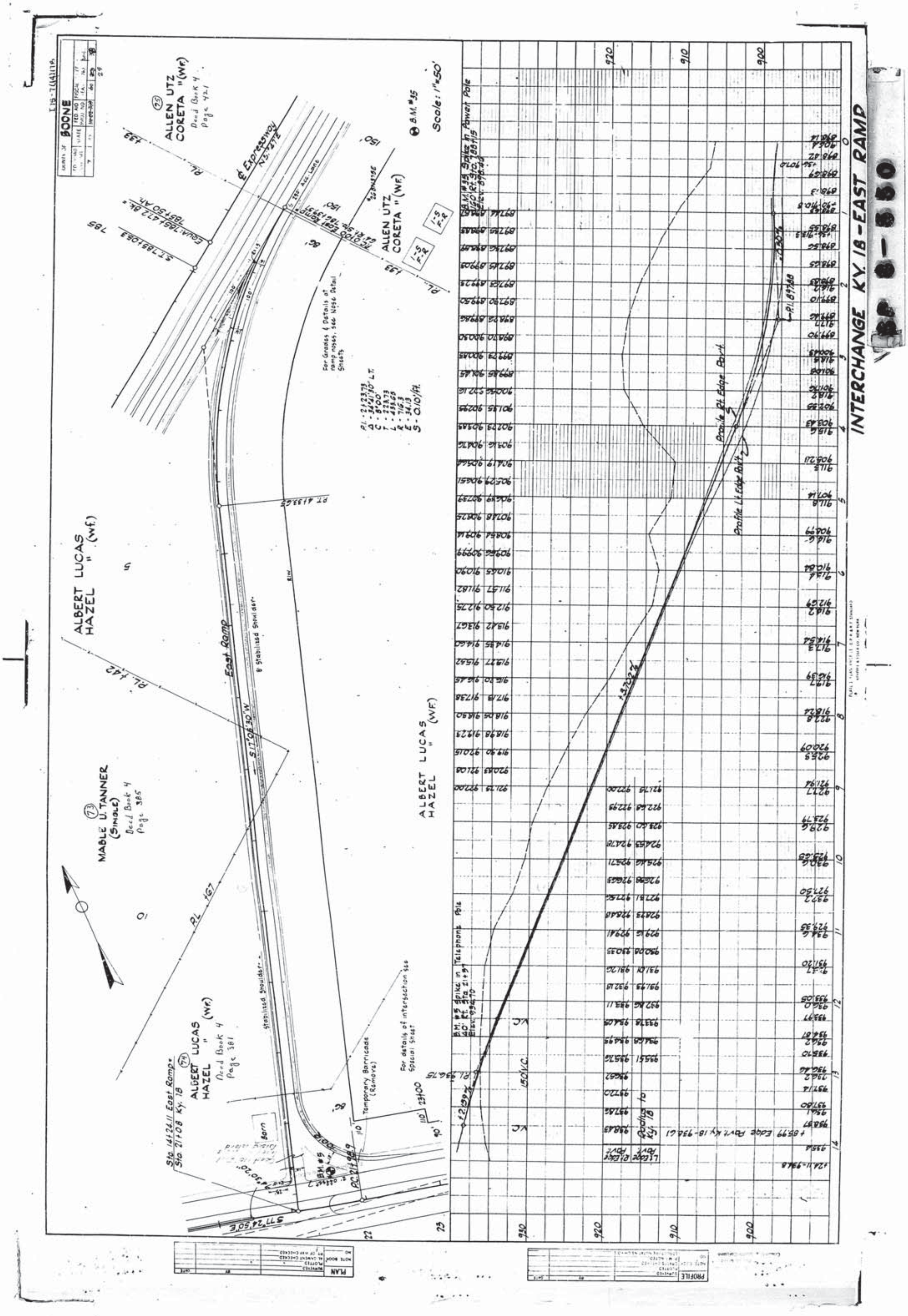


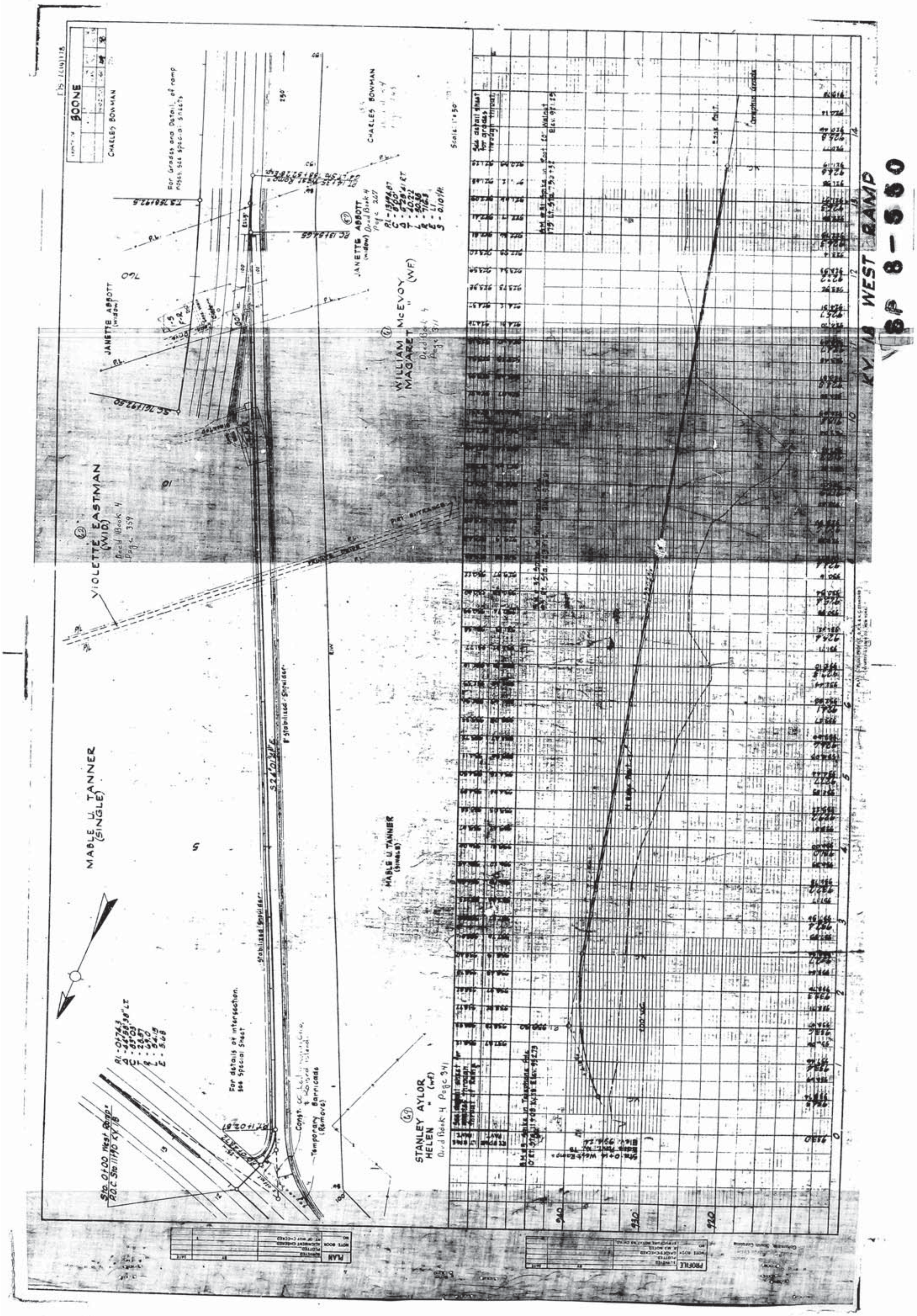
NORTH RAMP KY. 18 INTERCHANGE STA. 0+00 TO 10+00

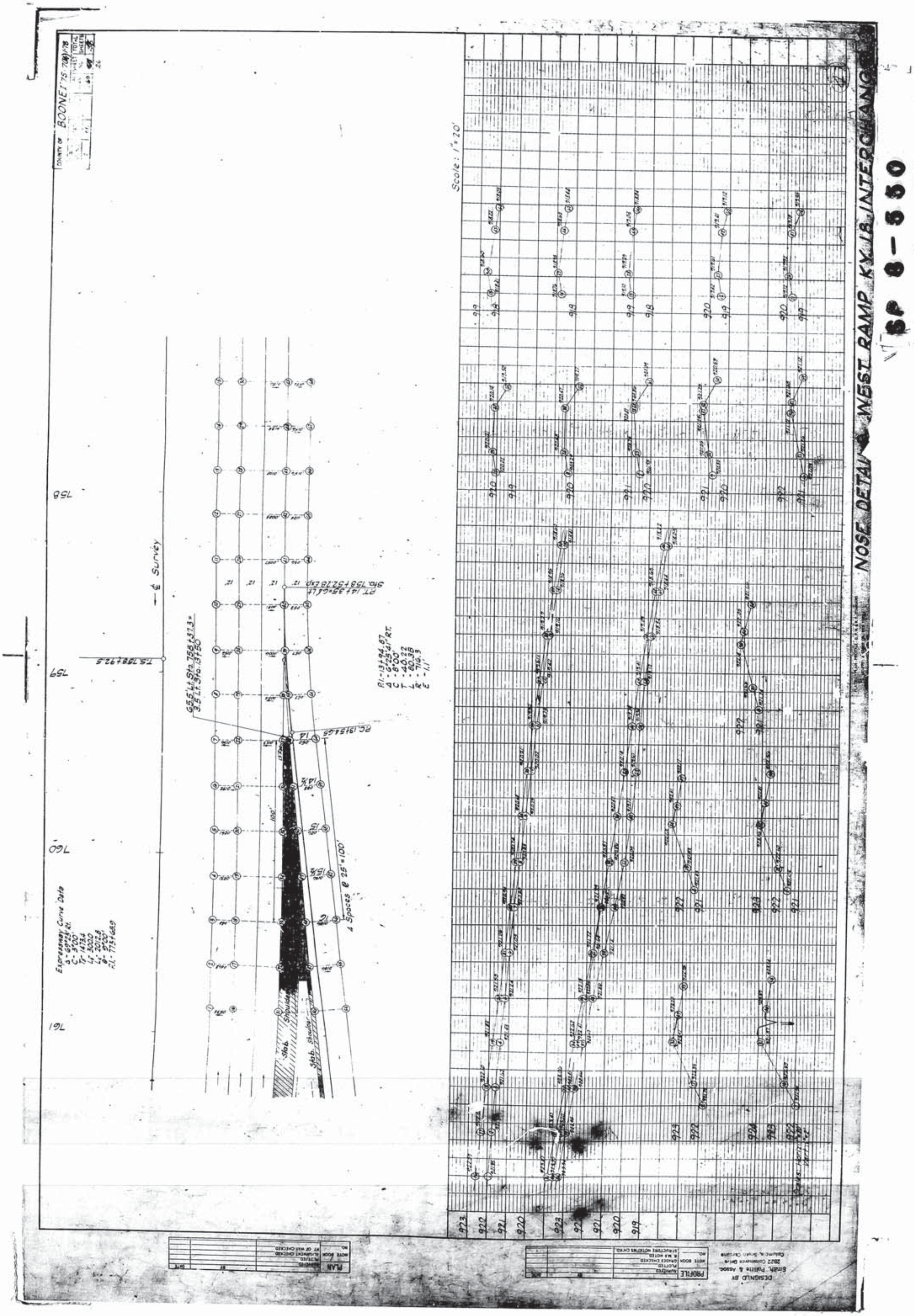
SP 8-550

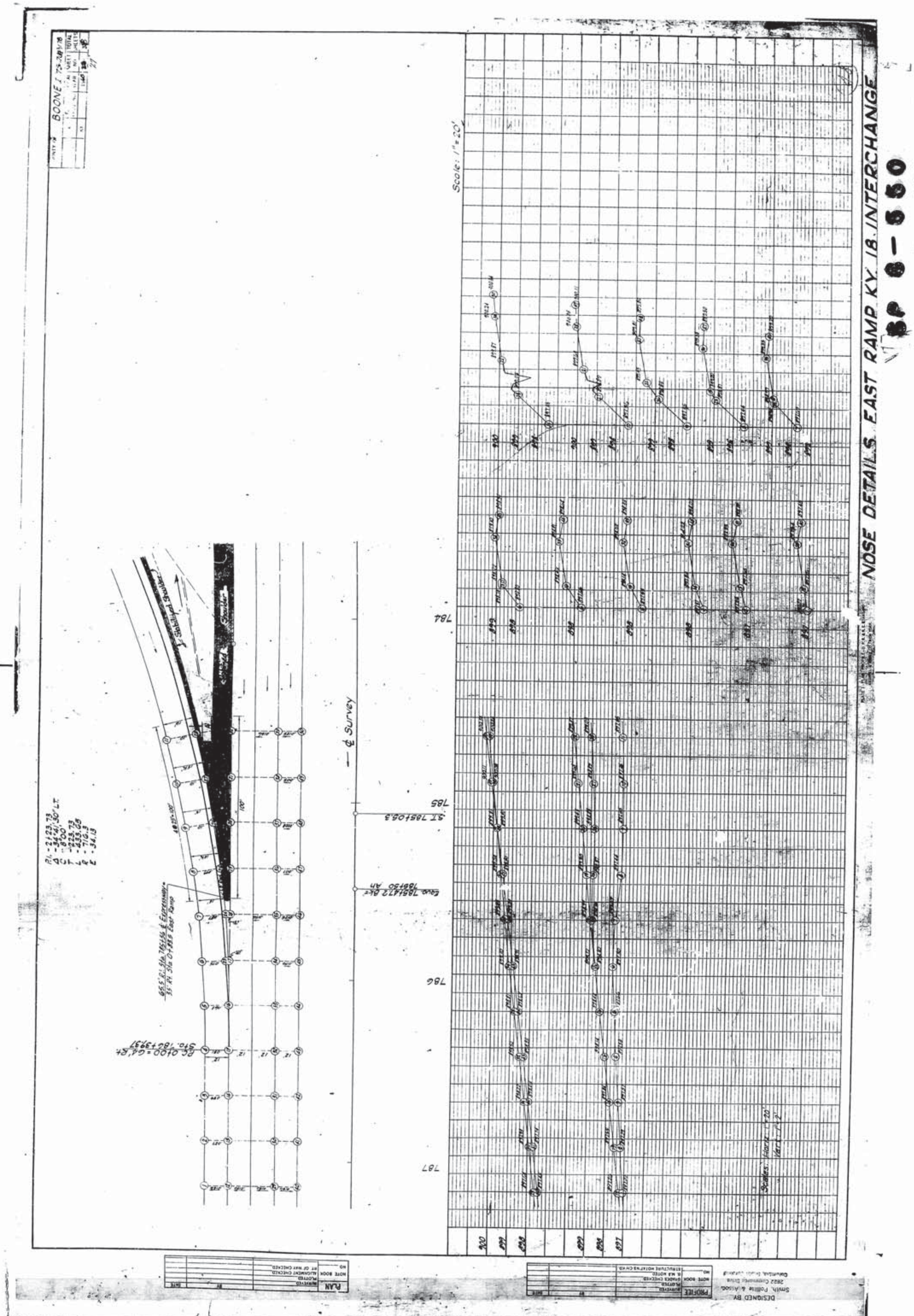

NORTH RAMP KY 18 INTERCHANGE STA.10+00 TO 17+79.60
BOONE
RAMP CURVE DATA
KY. 18 CURVE DATA
MABLE U. TANNER
MABLE U. TANNER
(SINGLE)
ANDY BICDENHARN
SOPHIA
(W.F.)
NORTH RAMP
Barn
Temporary Barricades
(Remove)
See special sheet for
details of intersection.
Scale: 1"=50'
Profile Rt. Edge Pavt.
Profile Lt. Edge Pavt.
400' V.C.
930
920
910
900
890
PLAN
PROFILE

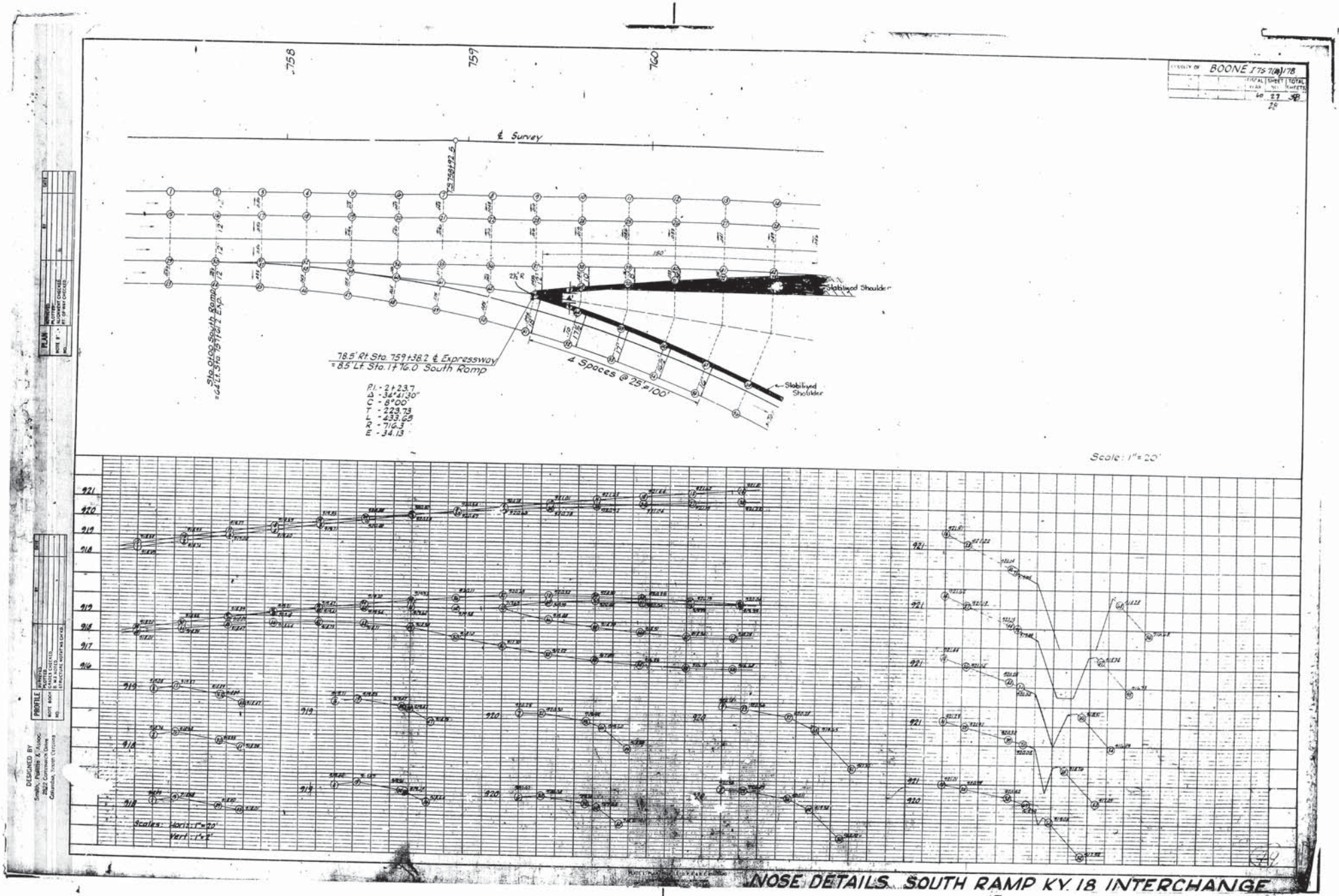

SOUTH RAMP KY. 18 INTERCHANGE
BOONE
MARGARET GOODRIDGE (WID)
CHARLES
EVA
FRANK KAELIN
LUCILLE
ROBERT E. MORGAN
CATHERINE
WILLIAM McEVOY
MARGARET
ALBERT SCHREIVERS
CLARA
P. E. DEPENBROCK
RUTH
JANETTE ABBOTT (WIDOW)
CHARLES BOWMAN
POND
Scale: 1" = 50'
PLAN
PROFILE


BOONE
INTERCHANGE KY. 18-EAST RAMP
Scale: 1"=50'
ALLEN UTZ
CORETA " (WF)
Deed Book 4
Page 421
ALBERT LUCAS
HAZEL " (WF)
MABLE U. TANNER
(SINGLE)
Deed Book 4
Page 385
ALBERT LUCAS
HAZEL " (WF)
Deed Book 4
Page 381
East Ramp
℄ Expressway
Stabilized Shoulder
Temporary Barricade (Remove)
For details of intersection see Special Sheet
For Grades & Details at ramp noses, see Nose Detail Sheets
Profile Rt. Edge Pavt.
Profile Lt. Edge Pavt.
150' V.C.
PLAN
PROFILE


BOONE
KY 18 WEST RAMP
SP 8-550
CHARLES BOWMAN
JANETTE ABBOTT (widow)
VIOLETTE EASTMAN (WID.)
WILLIAM McEVOY
MAGARET " (WF)
MABLE U. TANNER (SINGLE)
STANLEY AYLOR
HELEN " (wf)
PLAN
PROFILE

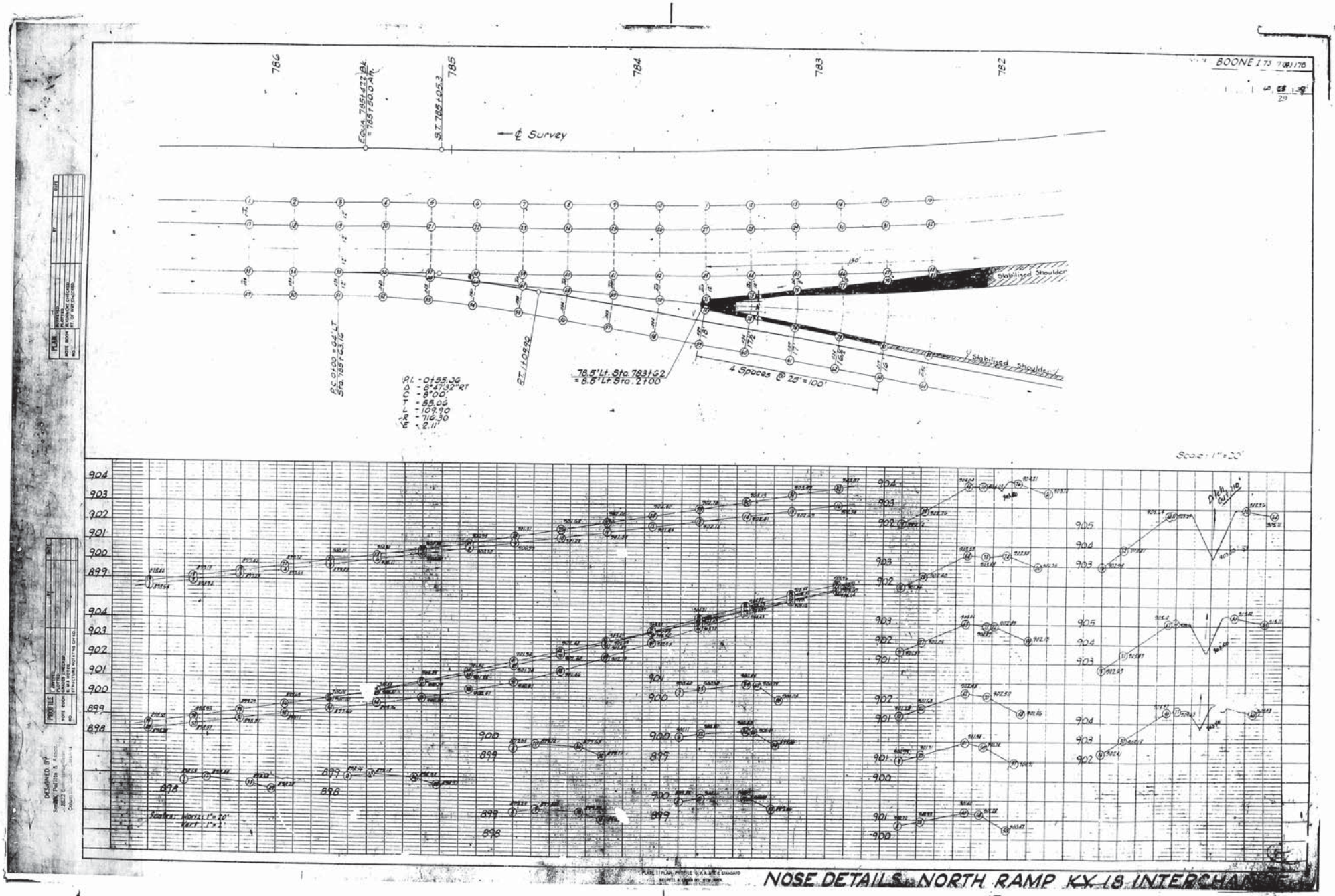

NOSE DETAIL WEST RAMP KY 18 INTERCHANGE
SP 8-550
Scale: 1" = 20'
COUNTY OF BOONE
Expressway Curve Data
℄ Survey
4 Spaces @ 25' = 100'
Slab
Shoulder
PLAN
PROFILE
DESIGNED BY
Smith, Palmer & Assoc.


NOSE DETAILS EAST RAMP KY. 18 INTERCHANGE
SP 8-550
Scale: 1"=20'
℄ Survey
PLAN
PROFILE



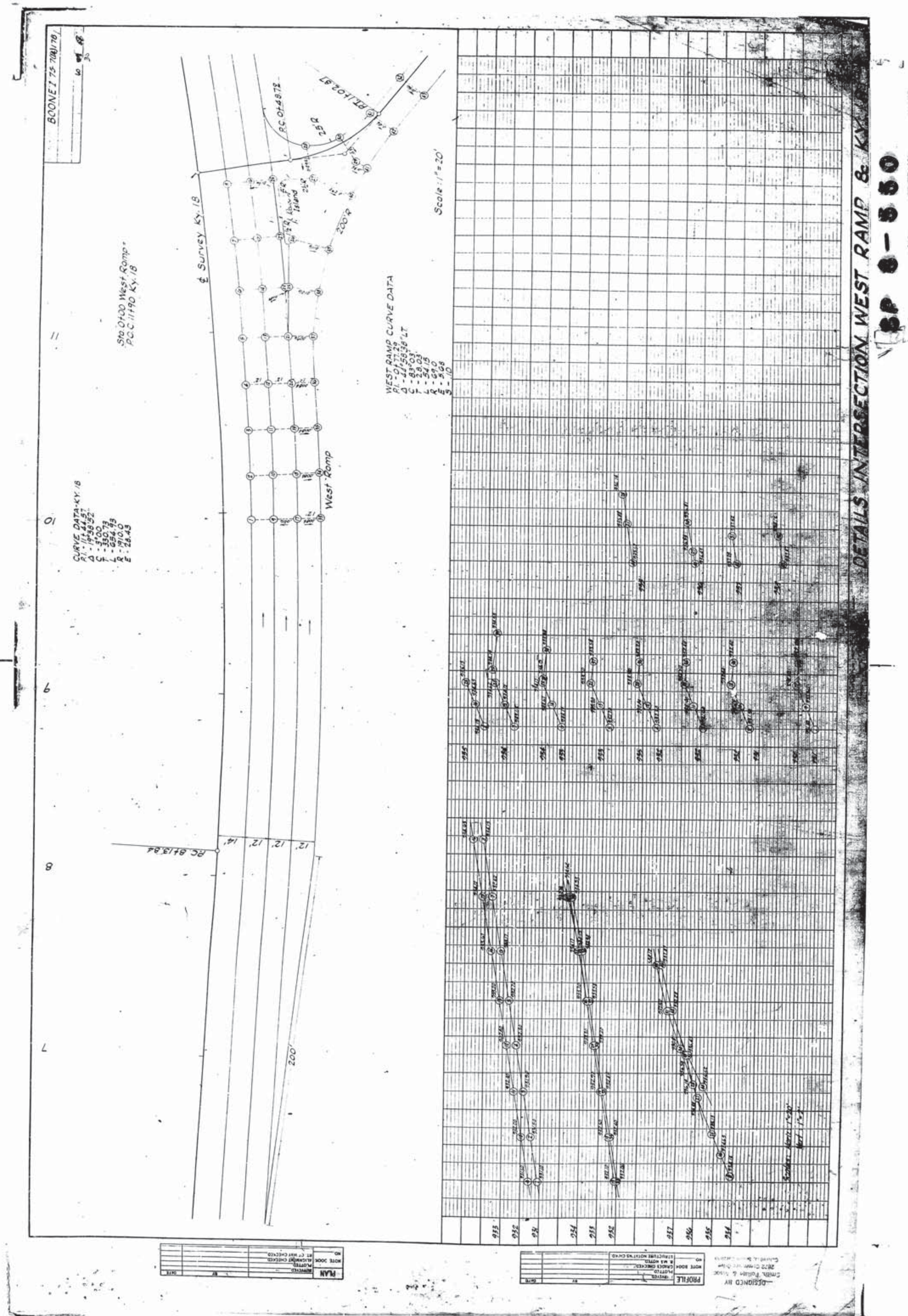
NOSE DETAILS SOUTH RAMP KY 18 INTERCHANGE

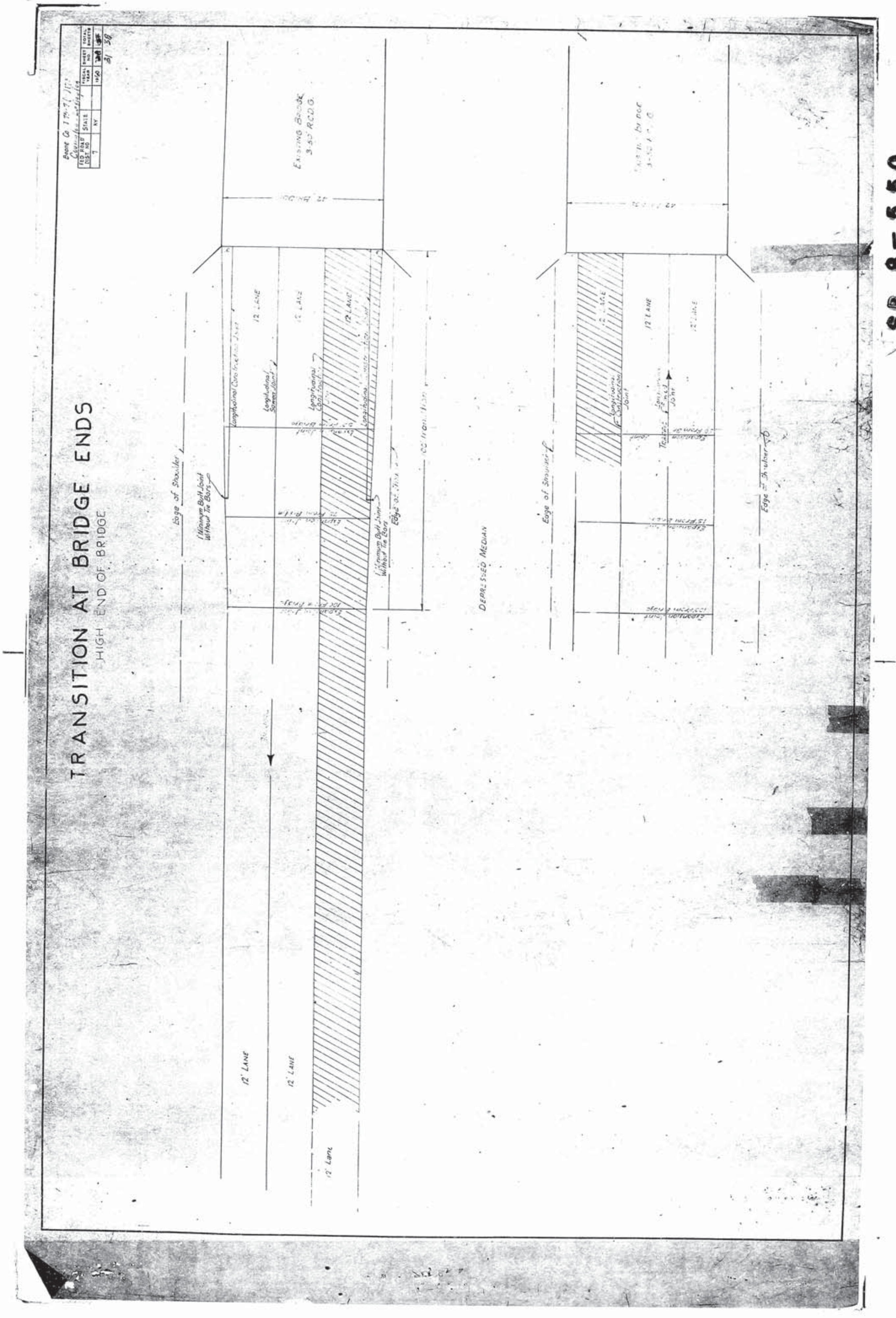
SP 8-550

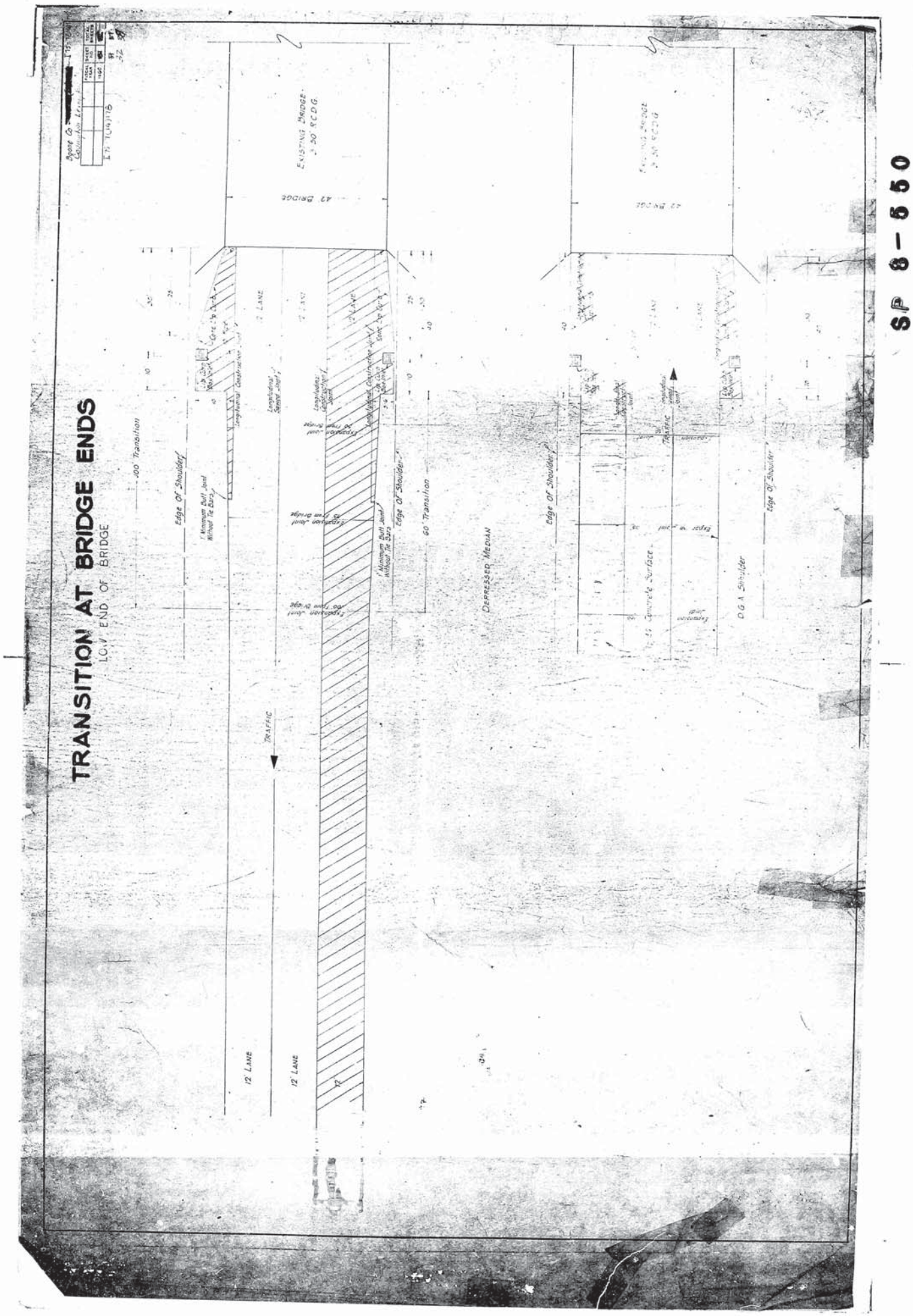


NOSE DETAILS, NORTH RAMP KY 18 INTERCHANGE

SP 8-550


DETAILS INTERSECTION WEST RAMP & KY. 18
SP 8-550
BOONE I 75 7(8)170
℄ Survey Ky. 18
West Ramp
WEST RAMP CURVE DATA
CURVE DATA-KY. 18
Sta 0+00 West Ramp = P.O.C. 11+90 Ky. 18
Scale: 1" = 20'
PC 8+13.84
PLAN
PROFILE


TRANSITION AT BRIDGE ENDS
HIGH END OF BRIDGE
SP 8-550
EXISTING BRIDGE
Edge of Shoulder
12' LANE
12' Lane
Longitudinal Contraction Joint
Longitudinal Sawed Joint
Longitudinal Joint
Expansion Joint
Minimum Butt Joint Without Tie Bars
DEPRESSED MEDIAN
Traffic


TRANSITION AT BRIDGE ENDS
LOW END OF BRIDGE
EXISTING BRIDGE
43' BRIDGE
12' LANE
12' LANE
TRAFFIC
Edge Of Shoulder
100' Transition
60' Transition
DEPRESSED MEDIAN
Edge Of Shoulder
Concrete Surface
D.G.A. Shoulder
Edge Of Shoulder
SP 8-550

1978 PLAN SHEETS

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Boone	1975	1	46

SP 8-90
US 590(9) U 168(13)

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

PLANS OF PROPOSED PROJECT

US 590(9) U 168(13)

BOONE COUNTY

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	Layout Sheet
2a-2e, 8	Typical Sections, Summary of Quantities Sheets, Plan and Profile Sheets
8a-8e, 8l-8m	Signal Plans
9	
10	
11-20	

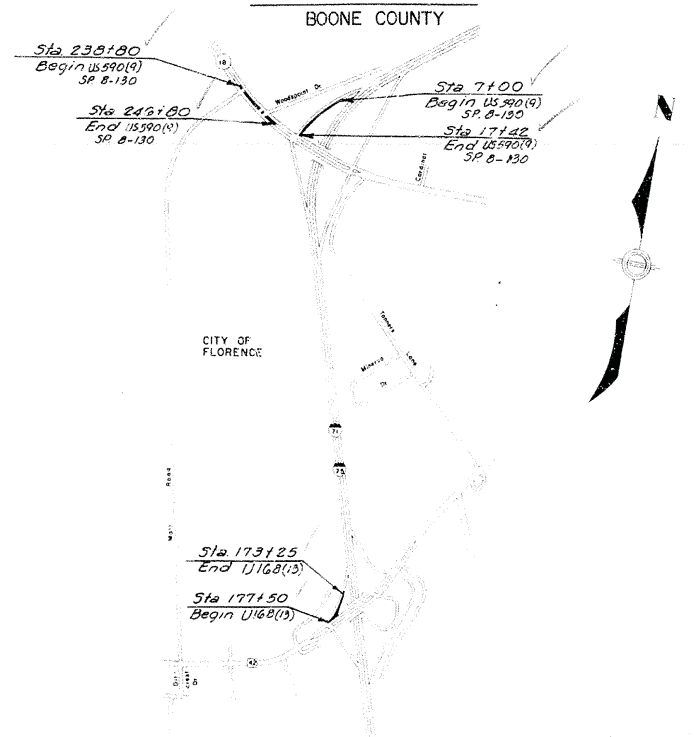
Sheets not included in total sheets: 2a-2e 8a-8m

Total Bridge Sheets: NA

STANDARD DRAWINGS

RGX-001-01
RGX-010
RDI-001-01
RDI-020
RDB-106-01
RDX-001
RDS-001
RPX-001
RDM-100
RDB-105-01
RRE-002
TSC-210
TSC-221
TSC-260-02

Total Std Drawings 14



Subsection of contract U168(13) SP 8-90-23
8-90-2301 Grade drain & surface from Sta 171+50 to Sta 173+25.

US590(9) SP 8-130-20
8-130-2001 Grade drain and surface from Sta 238+80 to Sta 249+80, and from Sta 7+00 to Sta 17+42.

8-130-2071 Traffic signals

AS BUILT PLANS

A.B. Mazza
DIRECTOR - Division of Construction
Date: 4/21/75

THESE PLANS ARE FOR GRADE, DRAIN AND SURFACING

THE CONTROL OF ACCESS ON U.S. 42 SHALL BE BY PERMIT. KY 18 & U.S. 42 RAMP CONSTRUCTION SHALL BE FULLY CONTROLLED ACCESS. (SEE PLANS FOR LIMITS)

MICROFILMED-78

DESIGN CRITERIA

Class of Highway: RAMPS-INTERSTATE-KY.18+1
Type of Terrain: ROLLING

DESIGNED

GRAPHIC SCALE IN FEET (800 0 800 1600 2400)

LAYOUT MAP

TOTAL PROJECT
Gross Length 2567.0 Lin. Ft. 0.489 miles
Added/Deducted for Equalities ___ Lin. Ft.
Net Length 2567.0 Lin. Ft. 0.489 miles
Railroad Crossing No. ___ Lin. Ft.
Bridges ___ Lin. Ft.

	US 590(9) SP 8-130 (Median Revision)	US 590(9) SP 8-130 (KY. 18 Ramp)	Total US 590(9) SP 8-130	N.W. Ramp U 168(13) SP 8-90
Gross Length	800.0 Lin. Ft. 0.151 Miles	1042.0 Lin. Ft. 0.197 Miles	1842.0 Lin. Ft. 0.348 Miles	425.0 Lin. Ft. 0.080 Miles
Net Length	800.0 Lin. Ft. 0.151 Miles	1042.0 Lin. Ft. 0.197 Miles	1842.0 Lin. Ft. 0.348 Miles	425.0 Lin. Ft. 0.080 Miles
Railroad Crossings	Not included	Not included	Not included	Not included

KENTUCKY
BUREAU OF HIGHWAYS
BOONE COUNTY

I-75 & KY.18 - I-75 & U.S.42 NORTHWEST RAMPS; KY.18 MEDIAN REVISION

Project Number: SP 8-90-23 + SP 8-130-20 (KY.18) US 590(9); (U.S.42) U 168(13)
Letting Date 8-14-75

Designed by: June 24, 1974 Benn S. Powell, Design Engineer
3/21/75 S.R. Blanc, Director of Traffic
Plan checked: 4/1/1975 Roy L. Graham, Chief Draftsman
Plan approved: 4-1 1975 E.B. Gaither, Director of Design
Plan approved: State Highway Engineer

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED ______ 19__

DIVISION ENGINEER

Plans checked by: F.J.S. CWG, DND

Reviewed by: Division of Construction

Record Plans / Construction Plans

SP 8-90-23

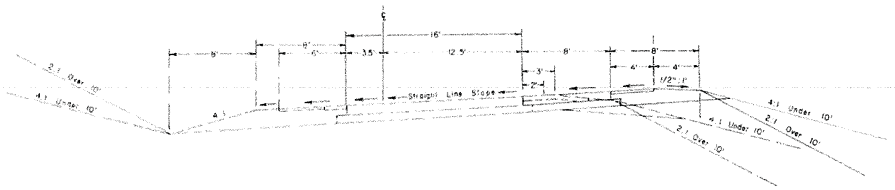
TYPICAL SECTIONS

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
BOONE	1975	2	16

LOUISVILLE - COVINGTON ROAD (U.S. 42)
S.P. 8-90

2

U.S. 42 (SURFACING SCHEDULE "E")
NORTHWEST RAMP
TYPICAL RAMP SUPERELEVATED SECTION



SURFACING SCHEDULE "E"
NEW CONSTRUCTION
GRADE, DRAIN AND RIGID PAVEMENT
USING

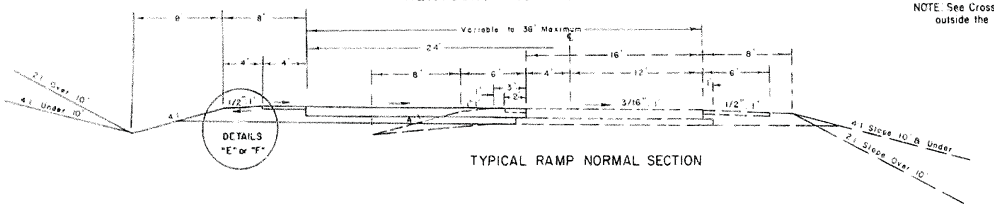
Approximately 6" Base — 6" Compacted Depth Dense Graded Aggregate Base

Approximately 10" Surface — 10" Uniform ~~Depth~~ *Standard Reinforced Cement Concrete Pavement, Type 'D'*

Stabilized Shoulders —
- *Full Depth*
- Compacted Dense Graded Aggregate Base
- 0.25 Gal./Sq.Yd. (Prime Coat)
- 2" Class I Surface — (Compacted Bituminous Concrete Surface, Type A, Modified Gradation
- 0.30 Gal./Sq.Yd. Bituminous Seal Coat (i)
- 20 Lb./Sq.Yd. Crushed Aggregate Size No. 8 (i)

(i) The last course of oil and aggregate shall extend throughout the shoulder and extend two feet down the ditch or fill slope to help prevent erosion.

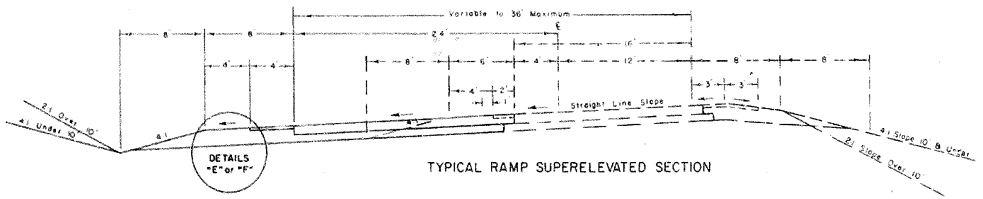
NORTH RAMP
KENTUCKY 18 (SURFACING SCHEDULE "E")



TYPICAL RAMP NORMAL SECTION

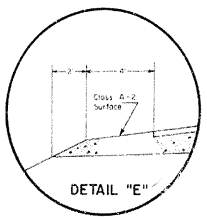
NOTE: See Cross Sections for slopes outside the limits of the shoulder.

NORTH RAMP
KENTUCKY 18 (SURFACING SCHEDULE "E")

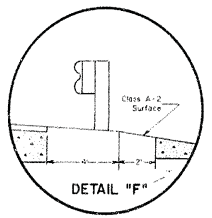


TYPICAL RAMP SUPERELEVATED SECTION

Superelevated Shoulder, Construct to Standard Superelevated, except not flatter than the slopes indicated above for normal shoulder



DETAIL "E"



DETAIL "F"

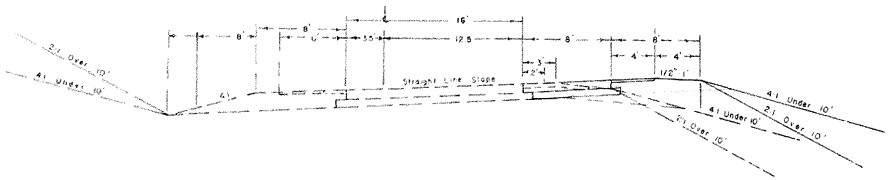
TYPICAL SECTIONS

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
BOONE	1975	3	46

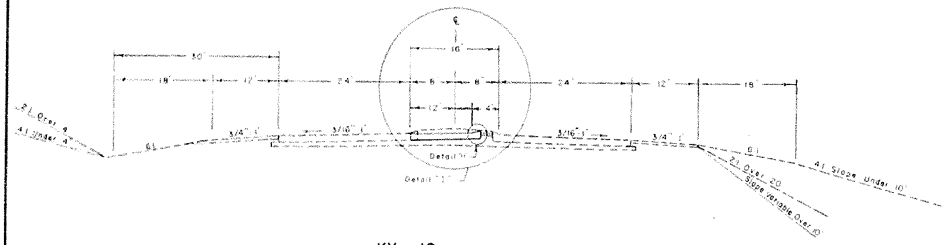
LOUISVILLE - COVINGTON ROAD (U.S. 42)
S.P. 8-90

3

U.S. 42 (SURFACING SCHEDULE "E")
NORTHWEST RAMP
TYPICAL RAMP SUPERELEVATED SECTION

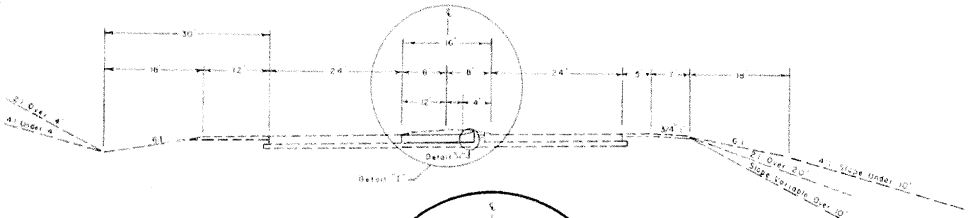


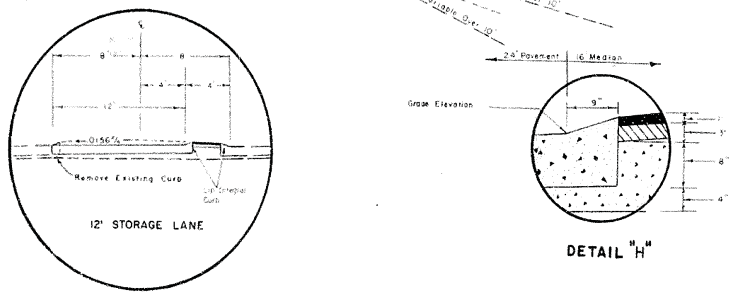
KY. 18 (SURFACING SCHEDULE "F")
NORMAL SECTION (12' STORAGE LANE)



KY. 18 (SURFACING SCHEDULE "F")
SUPERELEVATED SECTION (12' STORAGE LANE)

NOTE See Cross Sections for slopes outside the limits of the shoulder.





SURFACING SCHEDULE "F" FOR KY. 18 STORAGE LANES

NEW CONSTRUCTION

GRADE, DRAIN AND RIGID PAVEMENT

USING

Approximately 4" Base	4"	Compacted Dense Graded Aggregate Base
Approximately 9" Surface	9"	Uniform Depth Standard Reinforced Cement Concrete Pavement Type D
MEDIAN: Approximately 15" Base		Full Depth Compacted Dense Graded Aggregate Base
MEDIAN: Approximately 15" Base	3"	Class I Base — Compacted Bituminous Concrete Base
MEDIAN: Tack Coat	0.10	Gal. per Sq Yd. Apply as directed by the Engineer
MEDIAN: Approximately 1" Class I Surface	1"	Compacted Bituminous Concrete Surface, Type A, Modified Gradation

Superelevated Shoulder, Construct to Standard Superelevated, except not flatter than the slopes indicated above for normal shoulder

TYPICAL SECTIONS

SP 8 - 90 - 23

Boone County US 590(9) SP 8-130 – US 42(13) SP 8-90

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Boone	1975	4	46

4

GENERAL SUMMARY

ITEM	UNIT	US590(9) SP 8-130 (MEDIAN REVISION)	US 590(9) SP 8-130 KY 18 RAMP	TOTAL US590(9) SP 8-130	US42 NORTH-WEST RAMP US42(13) SP 8-90	TOTAL PROJECT
Embankment- In- place	Cu. Yd.	–	9091 ①	9091	5482	14573
Water	1000 GAL.	–	70	70	208	278 ②
Final Dressing Class "A"	100' Sta	–	10.4	10.4	4.3	14.7
Paved Ditch Type I	Sq. Yd.	–	396	396	162	558
Steel Beam Guard Rail Type I	Lin. Ft.	–	200	200	50	250
Guard Rail End Treatment Type 2A	Each	–	1	1	1	2
Lip Integral Curb	Lin. Ft.	625	-	625	-	625
Signalization ③						
Expansion Hook Bolts ④	Each	516	695	1211	340	1551
Seeding and Protection (with Bituminous Treated Mulch, Method 2)	Sq. Yd.	–	7458	7458	2944	10402
Sodding	Sq. Yd.	–	250	250	100	350
Special Seeding Crown Vetch	Lb.	–	20	20	10	30
Agricultural Limestone	Ton	–	5.0	5.0	2.0	7.0
Fertilizer 10-20-20	Ton	–	1.0	1.0	.5	1.5
TEMPORARY EROSION CONTROL QUANTITIES						
Straw	Ton	–	.4	.4	.2	.6
DEMOBILIZATION	Lump Sum	–				Lump Sum

① Includes 338 Cu. Yd Embankment Benching

② 278 M Gals for Dust Control

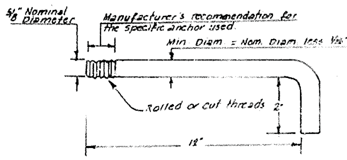
③ See Sheet Nos 8a thru 8e for Details and quantities.

④

This work shall consist of furnishing and installing expansion hook bolts for concrete pavement widening or concrete culvert extensions.

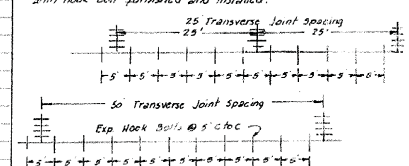
The expansion anchor for the bolt size indicated on the plans shall be Bethlehem Mine Roof Expansion Type with K-1 Shell, Phillips Red Head Anchor, Chicago Expansion Bolt Company, Special Flush Self Drilling Anchor, or approved equal. Installation shall conform to the manufacturer's recommendation for the specific anchor used. The expansion type sleeve shall be capable of withstanding a pull-out test of 9000 pounds, and shall be field tested as directed by the Engineer immediately prior to construction of the adjoining concrete base. The expansion hook bolts shall be spaced on 5' centers.

The hook bolts shall conform to the requirements of the current Standard Specifications. They shall be of the "L" type as shown in the sketch below.



Expansion hook bolts shall be measured as units.

Expansion hook bolts of the size and length indicated shall be paid for at the contract unit price each, which price will be payment in full for the expansion anchor with hook bolt furnished and installed.



SP 8 – 90 – 23

PIPE DRAINAGE SUMMARY

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
BOONE	1975	5	46

LOUISVILLE – COVINGTON ROAD (U.S. 42)
S.P. 8-90-

REMARKS

5

SHEET NO	STATION	SKEW	Culvert Pipe 15" 16 Gage B.C.S.P.	Culvert Pipe 18" RCP Class III	Culvert Pipe 24" RCP Class III	Culvert Pipe 24" 14 Gage B.C.S.P.	24" Junction Box	Box Inlet or Outlet 18" Sloped & Flared	Box Inlet or Outlet 24" Sloped & Flared	REMARKS
UNIT TO BID ON			Linear Feet				Each			
175 – Ky 18 N.W. Ramp										
10	10+93 (US 595 (4))	11°49'Lt		44						Remove 1 Hdwl
175	US 42 N.W. Ramp									
10	175+88 (US 42 (3))	0°	16		52					Remove 1 Hdwl
TOTAL PROJECT			16	44	52					

PIPE DRAINAGE SUMMARY

SP 8-90-23

Boone County US 590(9) SP 8-130 U 168(13) SP 8-90

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Boone	1975	6	46

PAVING AREAS

ITEM	US 590(9) SP 8-130 (MEDIAN REVISION)	US 590(9) SP 8-130 KY 10 RAMP	TOTAL US 590(9) SP 8-130	US 42 NORTH WEST RAMP U 168(13) SP 8-90	TOTAL PROJECT
			S Q U A R E Y A R D S		
2" Bituminous Concrete Surface Type "A" (Modified Gradation)		458	458	171	629
10" Cement Concrete Pavement Type "D"		1433	1433	403	1836
6" Dense Graded Aggregate Base		1433	1433	269	1702
A.I. Surface		695	695	289	984
1" Bituminous Concrete Surface Type "A" (Modified Gradation)	250	-	250	-	250
3" Bituminous Concrete Base	250	-	250	-	250
9" Cement Concrete Pavement Type "D"	849		849	-	849
9" Dense Graded Aggregate Base (Median)	250		250	-	250

BASIS FOR CLASS I ESTIMATE

APPROXIMATE THICKNESS OF COURSE IN INCHES	POUNDS PER SQUARE YARD			
	LIMESTONE	SLAG	GRAVEL	
			SILICEOUS	CALCAREOUS
1	110			109
2	220			218
3	330			327

SP 8 - 90 - 23

PAVING QUANTITIES

ITEM	UNIT	US 590(9) SP 8-130 Median Revision)	US 590(9) SP 8-130 (Ky 18 Ramp)	TOTAL US 590(9) SP 8-130	US 42 Northwest Ramp U168(13) SP 8-90	TOTAL PROJECT
		Q	U	A	N	T I T I E S
RIGID PAVEMENT						
9" Standard Reinforced Cement Concrete Pavement	SQ YD	849		849	-	849
10" Standard Reinforced Cement Concrete Pavement	Sq Yd.		1433	1433	403	1836
FLEXIBLE PAVEMENT WITH THE FOLLOWING COMPONENTS						
BITUMINOUS CONCRETE BASE CLASS I WITH ONE OF THE FOLLOWING COARSE AGGREGATES						
CRUSHED LIMESTONE / CRUSHED SLAG	TON	40	-	40	-	40
CRUSHED GRAVEL (Calcareous Gravel)	TON	40	-	40	-	40
AND BITUMINOUS CONCRETE SURFACE CLASS I TYPE 'A' (MODIFIED GRADATION) WITH ONE OF THE FOLLOWING COARSE AGGREGATES						
Crushed Limestone (For Shoulders) / Crushed Slag	Ton	-	50	50	20	70
Crushed Gravel (Calcareous)(For Shoulders)	Ton	-	50	50	20	70
AND BITUMINOUS CONCRETE SURFACE CLASS I TYPE 'B' (MODIFIED GRADATION) WITH ONE OF THE FOLLOWING COARSE AGGREGATES						
CRUSHED LIMESTONE / CRUSHED SLAG	TON	15	-	15	-	15
CRUSHED GRAVEL (Calcareous Gravel)	TON	15	-	15	-	15
WITH DENSE GRADED AGGREGATE BASE WITH ONE OF THE FOLLOWING AGGREGATES						
CRUSHED LIMESTONE ① / CRUSHED SLAG ②	TON	170	1630	1800	545	2345
WITH						
CALCIUM CHLORIDE	TON					
AND A-2 SURFACE WITH ONE OF THE FOLLOWING AGGREGATES						
CRUSHED LIMESTONE SIZE NO. 8 / SIZE NO. 78	TON	-	14	14	3	17
OR						
CRUSHED SLAG SIZE NO. 8 / SIZE NO. 78	TON	-				
OR						
CRUSHED GRAVEL (Calcareous) SIZE NO. 8 / SIZE NO. 78	TON	-	14	14	3	17
WITH						
BITUMINOUS TACK COAT ③	GAL	25	-	25	-	25
AND						
BITUMINOUS ④ PRIME COAT	GAL	—	175	175	70	245
AND						
BITUMINOUS ⑤ SEAL COAT	GAL	—	210	210	85	295
AND WITH TRAFFIC BOUND BASE WITH ONE OF THE FOLLOWING AGGREGATES						
CRUSHED LIMESTONE SIZE NO. 610 — ROADWAY / ENTRANCES / MAINT. OF TRAFFIC	TON					
OR						
GRAVEL — ROADWAY / ENTRANCES / MAINT. OF TRAFFIC	TON					
OR						
CRUSHED SLAG SIZE NO. 610 — ROADWAY / ENTRANCES / MAINT. OF TRAFFIC	TON					

① ESTIMATED AT 115 LBS. PER SQ. YD. PER INCH OF DEPTH.
② ESTIMATED AT 105 LBS. PER SQ. YD. PER INCH OF DEPTH.

③ May be either Emulsified Asphalt SS-1h or Cut-back Asphalt RC-250.
④ May be either Cut-back Asphalt Emulsion Prime L or Tar RT-2.
⑤ May be either Emulsified Asphalt RS-2 or Cut-back Asphalt RC-800

— other Bituminous Materials may be used if approved in writing by the Engineer.

7

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Boone	1975	7	46

Boone County SP 8-130 - SP 8-90 US 590(9) U168(13)

SP 8-90-23

GENERAL NOTES

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
BOONE	1975	8	46

US 590(9) 11128(13)

8

CONTRACTORS (DISTURBING EXISTING UTILITIES)

THE CONTRACTOR SHALL USE ALL POSSIBLE CARE WHEN WORKING ON THE PROJECT TO AVOID DAMAGING EXISTING UTILITIES, WHETHER THE UTILITIES ARE SHOWN OR ARE NOT SHOWN ON THE PLANS. ELEVATIONS AND LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. RESPONSIBILITY FOR ANY INJURY OR DAMAGE TO UTILITIES THAT MAY OCCUR DURING CONSTRUCTION OF THE PROJECT WILL BE DETERMINED IN ACCORDANCE WITH ARTICLE 1.7.11 OF THE 1965 STANDARD SPECIFICATIONS.

UTILITIES (HAZARDOUS OR FLAMMABLE MATERIALS)

THE CONTRACTOR IS ADVISED TO EXERCISE CAUTION IN HIS OPERATIONS IN AREAS WHERE PLANS INDICATE THE PRESENCE OF A GAS LINE OR OTHER LINES CARRYING HAZARDOUS MATERIAL.

NOTICE - CAUTION - CLASSIFICATION

WITHOUT REGARD TO THE MATERIALS ENCOUNTERED, ALL ROADWAY AND DRAINAGE EXCAVATION SHALL BE UNCLASSIFIED. IT SHALL BE DISTINCTLY UNDERSTOOD THAT ANY REFERENCE TO ROCK, EARTH, OR ANY OTHER MATERIAL ON THE PLANS OR CROSS-SECTIONS WHETHER IN NUMBERS, WORDS, LETTERS OR LINES, IS SOLELY FOR THE BUREAU'S INFORMATION AND IS NOT TO BE TAKEN AS AN INDICATION OF CLASSIFIED EXCAVATION OR THE QUANTITY OF EITHER ROCK, EARTH OR ANY OTHER MATERIAL INVOLVED. THE BIDDER MUST DRAW HIS OWN CONCLUSION AS TO THE CONDITIONS TO BE ENCOUNTERED. THE BUREAU DOES NOT GIVE ANY GUARANTEE AS TO THE ACCURACY OF THE DATA AND NO CLAIM WILL BE CONSIDERED FOR ADDITIONAL COMPENSATION IF THE MATERIALS ENCOUNTERED ARE NOT IN ACCORD WITH THE CLASSIFICATION SHOWN.

WING OR TAIL DITCH

THE CONTRACTOR SHALL CONSTRUCT THE NORMAL DITCH IN SUCH A WAY THAT THE WATER WILL TURN COMING OUT OF THE CUT AND BE DIRECTED AWAY FROM THE FILL. IN ORDER TO AVOID FUTURE FILL DAMAGE, IT IS NECESSARY TO CUT INTO ORIGINAL GROUND FOR A GIVEN DISTANCE BELOW AND BEYOND THE FILL SLOPE. THE LOCATION OF THIS DITCH SHALL BE DETERMINED BY THE ENGINEER; HOWEVER, IT SHALL BE AS FAR AWAY FROM THE FILL AS PRACTICABLE.

WASTE

WASTE MATERIAL IN EXCESS OF THAT WASTED WITHIN THE RIGHT-OF-WAY LIMITS SHALL BE DISPOSED OF OFF THE RIGHT-OF-WAY AT SITES ACQUIRED BY THE CONTRACTOR, AND APPROVED BY THE ENGINEER, AT NO ADDITIONAL COST TO THE BUREAU.

REMOVAL ITEMS

CONTRARY TO THE 1965 STANDARD SPECIFICATIONS, ALL REMOVAL ITEMS OF ANY KIND, NATURE, SIZE, CHARACTER OR SUBSTANCE (WITHIN THE LIMITS OF THE RIGHT-OF-WAY AND EASEMENTS), WHETHER SHOWN ON THE PLANS OR NOT, ARE TO BE INCIDENTAL TO THE CONTRACT.

THE CONTROL OF ACCESS ON U.S. 42 SHALL BE BY PERMIT. KY 18 & U.S. 42 RAMP CONSTRUCTION SHALL BE FULLY CONTROLLED ACCESS. (SEE PLANS FOR LIMITS)

CROSS SECTIONS

CROSS SECTIONS ON THIS PROJECT WERE DEVELOPED FROM AERIAL PHOTOGRAPHY

THE BITUMINOUS MATERIAL FOR CLASS I BITUMINOUS CONCRETE FOR SHOULDERS & MEDIANS SHALL BE A.C. 20. THE BITUMEN CONTENT OF CLASS I MIXTURES FOR SHOULDERS SHALL BE HELD TO THE HIGH SIDE OF THE SPECIFICATION RANGE AS DIRECTED BY THE ENGINEER ON CONSTRUCTION.

TRAFFIC NOTE

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES

UTILITY NOTE

NO UTILITIES INVOLVED ON THIS PROJECT

BUILDING NOTE

NO BUILDINGS INVOLVED ON THIS PROJECT

NOTE

ANY STANDARD DRAWINGS REFERRED TO IN THE PLANS, OR PROPOSAL, THAT ARE NOT ATTACHED, HAVE BEEN INCLUDED ELSEWHERE IN THE PLANS AS FULL SIZE DETAIL SHEETS.

PROPOSAL ATTACHMENTS

SPECIAL NOTES FOR 8"-"C" SHAPED STEEL GUARDRAIL POSTS

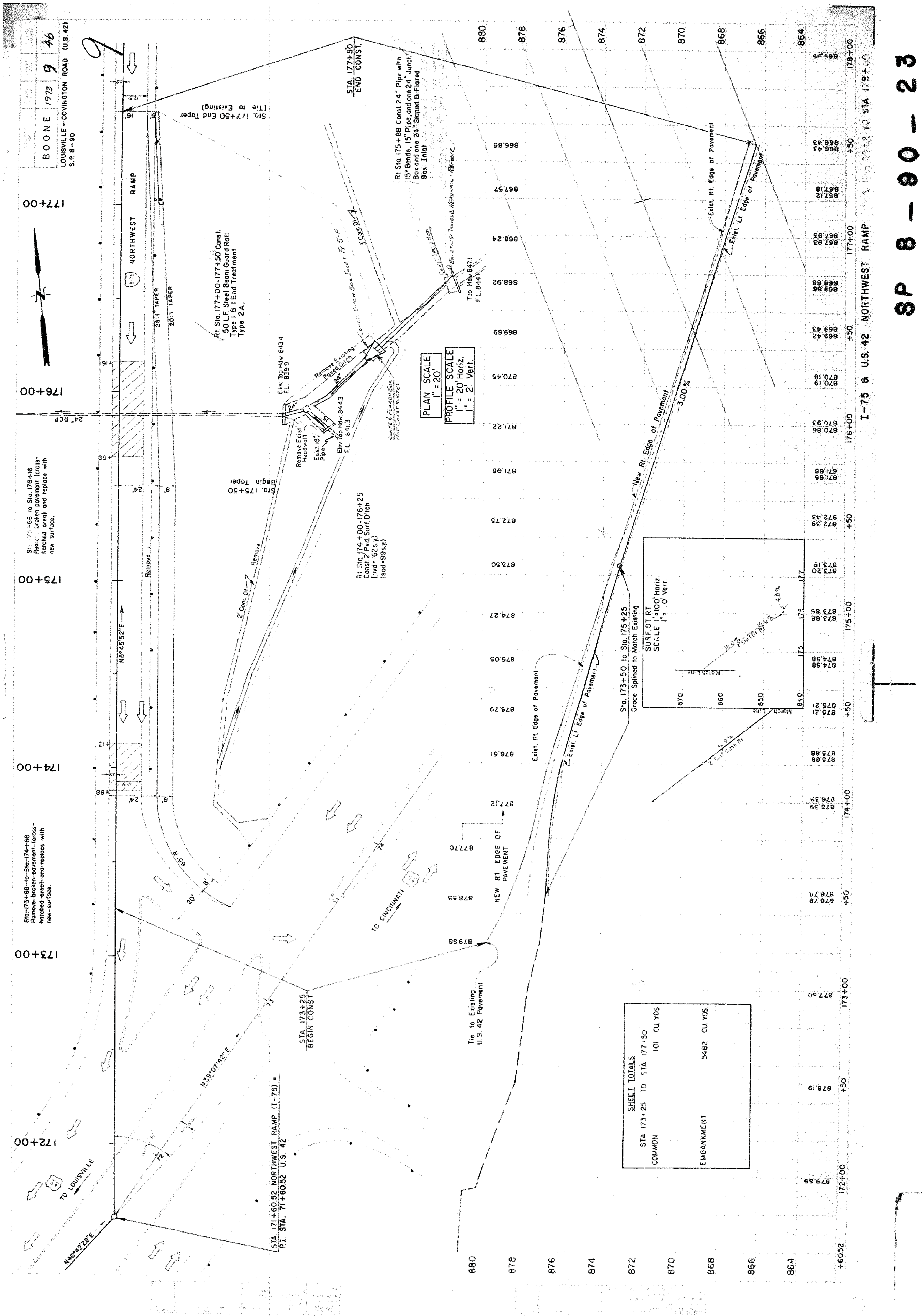
EROSION CONTROL NOTES

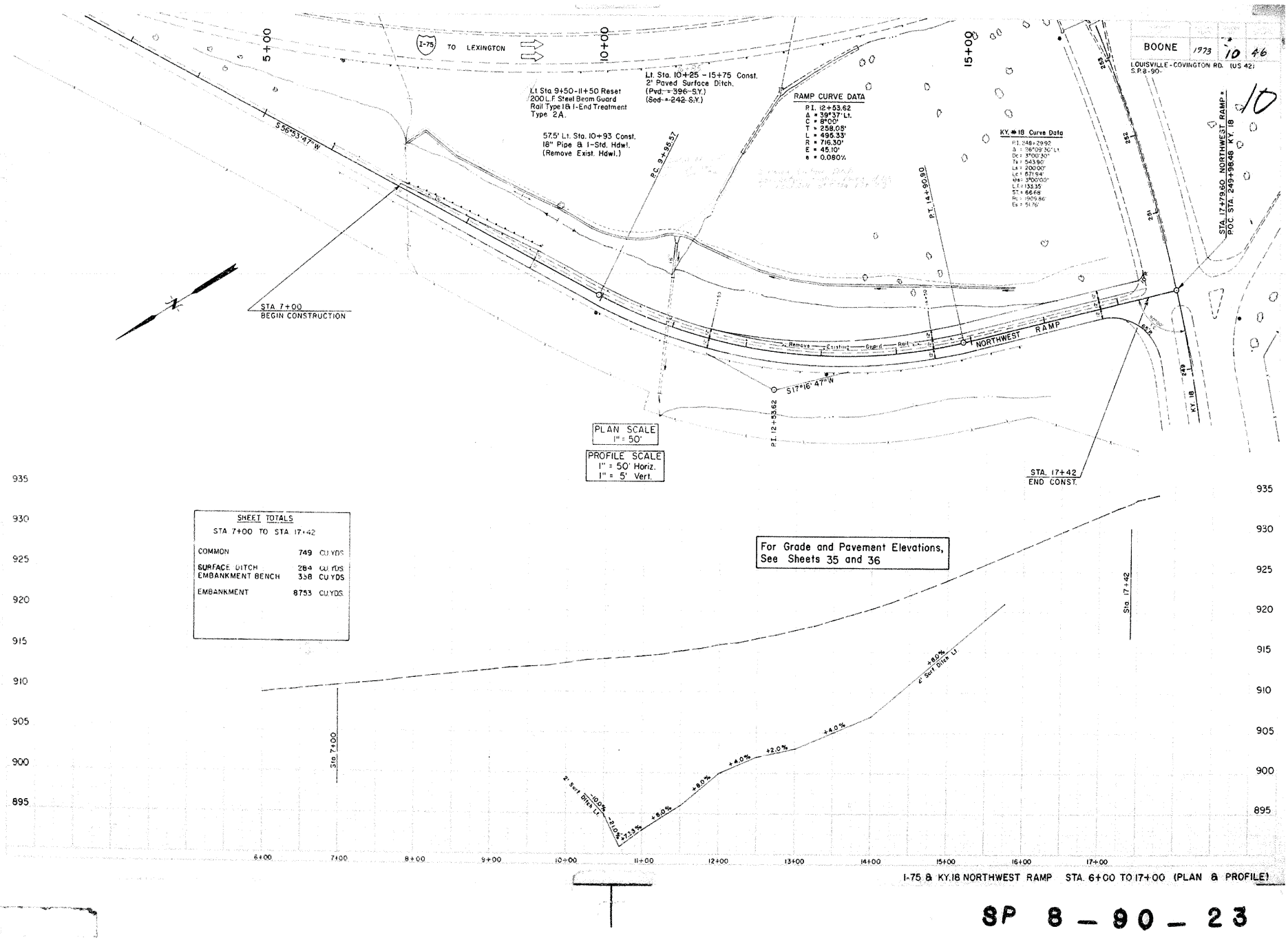
FR-1273 REQUIRED CONTRACT PROVISIONS

SPECIAL PROVISIONS

20A PRE-SPLITTING
29A FIELD LABORATORY FACILITIES
38E SLIP-FORM CONSTRUCTION
46D WATER POLLUTION CONTROL
57D EROSION CONTROL
75B OPERATION OF CONSTRUCTION VEHICLES OVER PAVEMENTS AND STRUCTURES
87 PAYMENT FOR DESIGN QUANTITY
89B REFLEX-REFLECTIVE MATERIALS
90A CONTRACT TIME
95B EMBANKMENT-IN-PLACE
98B CULVERT PIPE INSTALLATION
99A CONCRETE SURFACE FINISH
102 COARSE AGGREGATES
107 PARTIAL PAYMENTS FOR MATERIALS ON HAND
111 TERMINATION OF CONTRACT IN THE PUBLIC INTEREST
6B STAKING
FHWA MOBILIZATION & DEMOBILIZATION

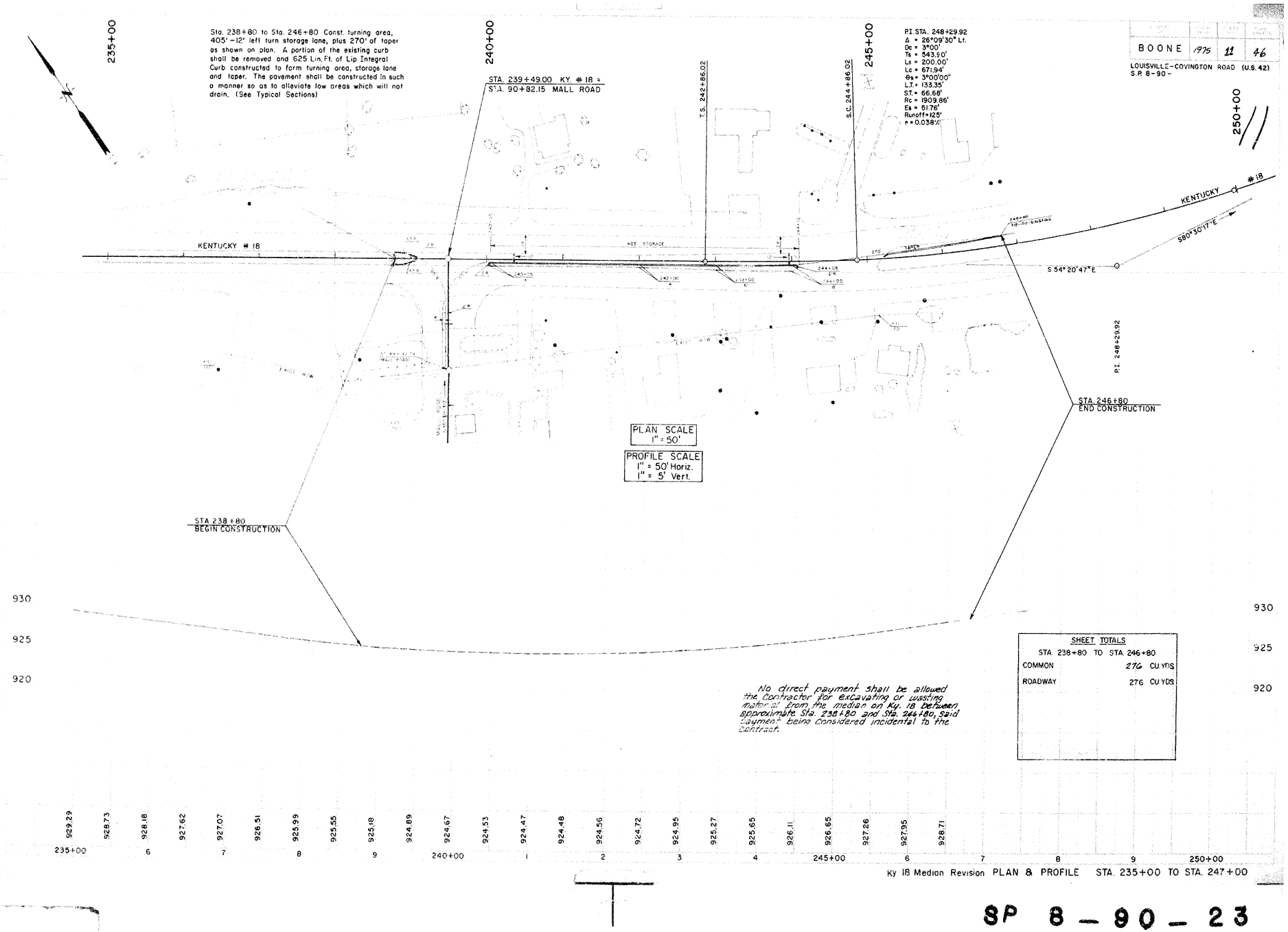
SP 8 - 90 - 23


SP 8-90-23
I-75 & U.S. 42 NORTHWEST RAMP
BOONE
LOUISVILLE - COVINGTON ROAD (U.S. 42)
S.P. 8-90
NORTHWEST RAMP
PLAN SCALE
1" = 20'
PROFILE SCALE
1" = 20' Horiz.
1" = 2' Vert.
STA. 177+50
END CONST.
STA. 173+25
BEGIN CONST.
STA. 171+60.52 NORTHWEST RAMP (I-75) =
P.I. STA. 71+60.52 U.S. 42
TO LOUISVILLE
TO CINCINNATI
N6°45'52"E
N39°07'42"E
N46°42'22"E
-3.00%
New Rt. Edge of Pavement
Exist. Rt. Edge of Pavement
Exist. Lt. Edge of Pavement
SHEET TOTALS
STA 173+25 TO STA 177+50
COMMON 101 CU YDS
EMBANKMENT 5482 CU YDS



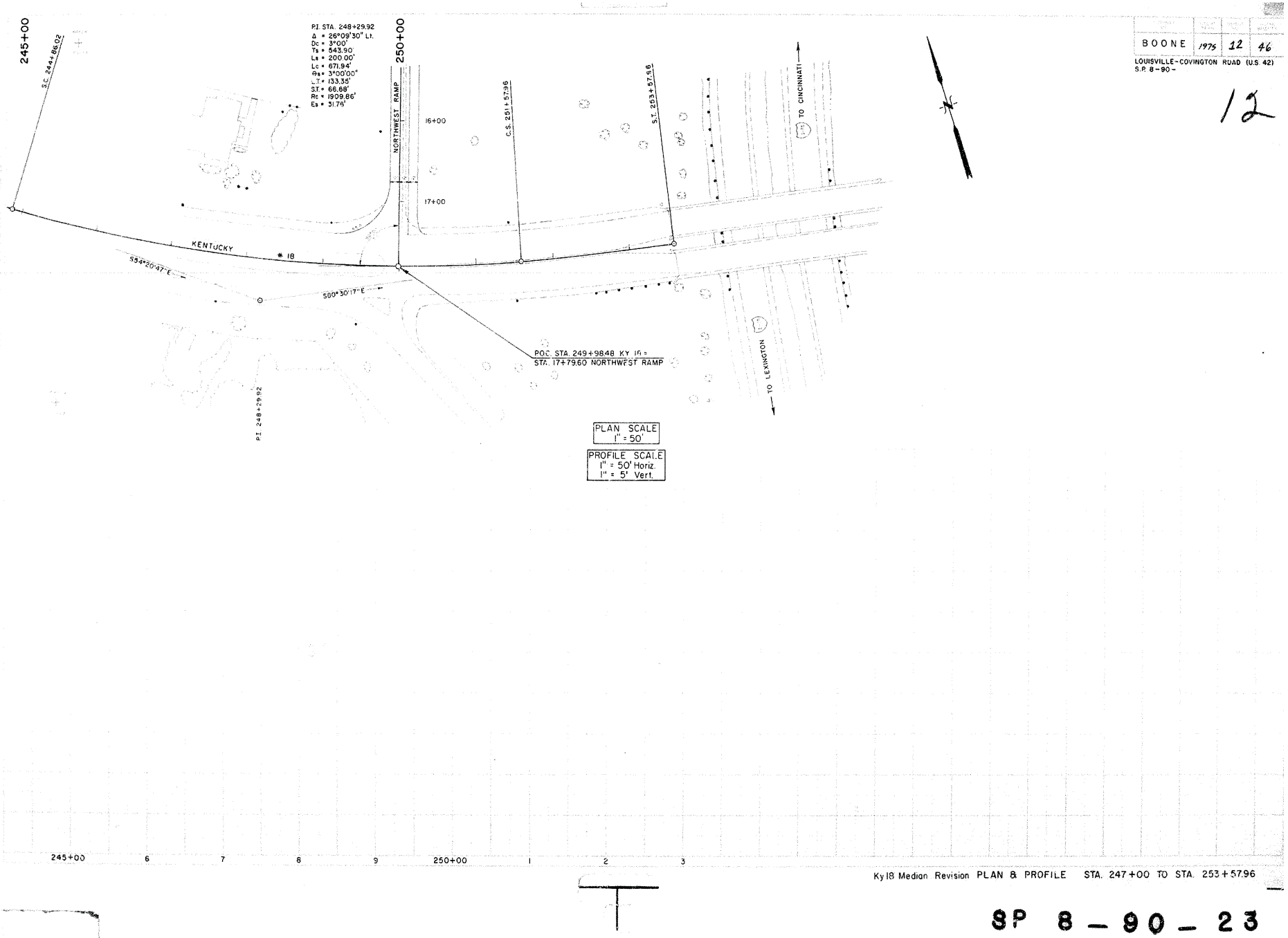
I-75 & KY.18 NORTHWEST RAMP STA. 6+00 TO 17+00 (PLAN & PROFILE)

SP 8 - 90 - 23



Ky 18 Median Revision PLAN & PROFILE STA. 235+00 TO STA. 247+00

SP 8-90-23



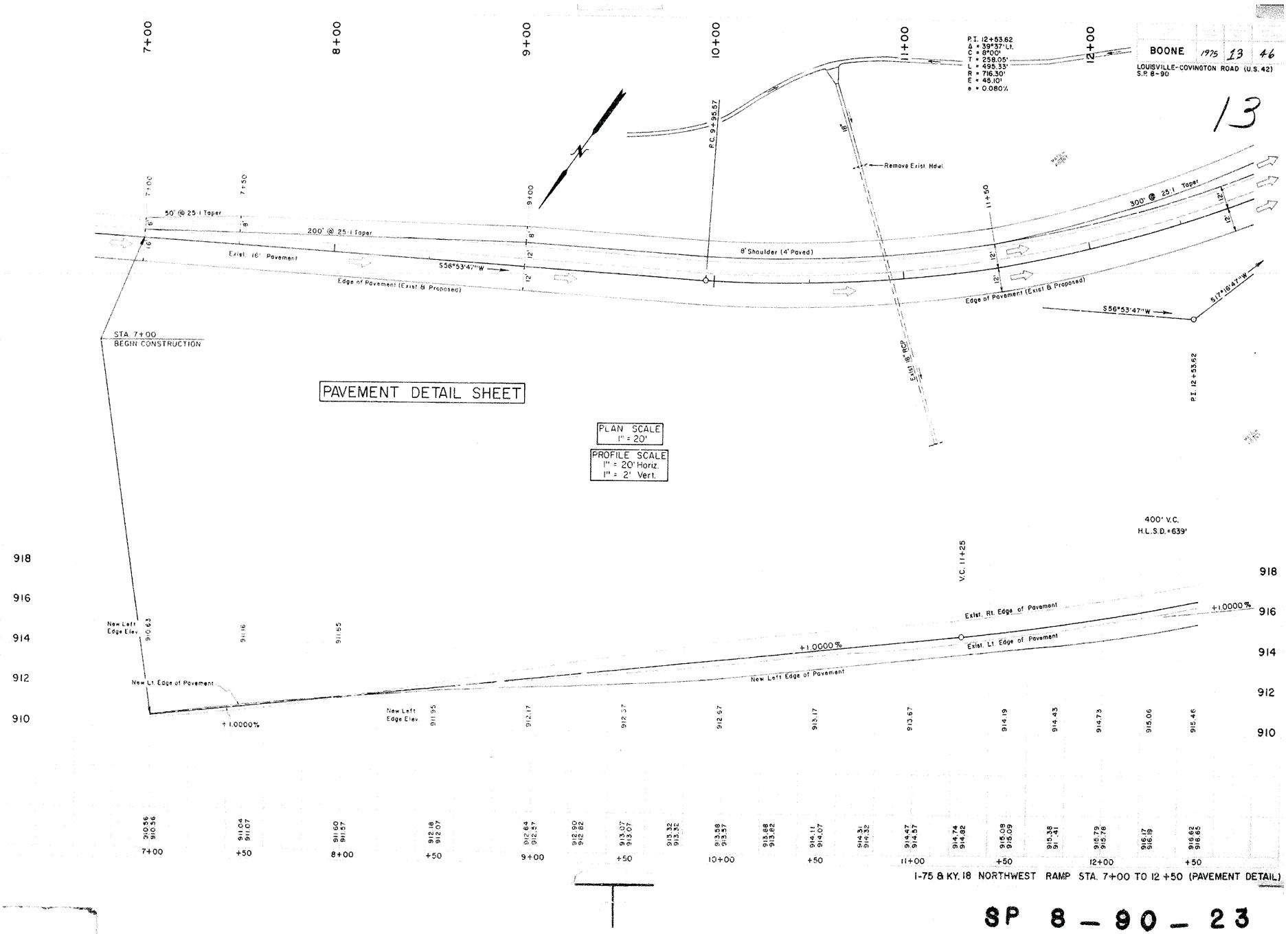
BOONE	1975	12	46

LOUISVILLE-COVINGTON ROAD (U.S. 42)
S.P. 8-90-

12

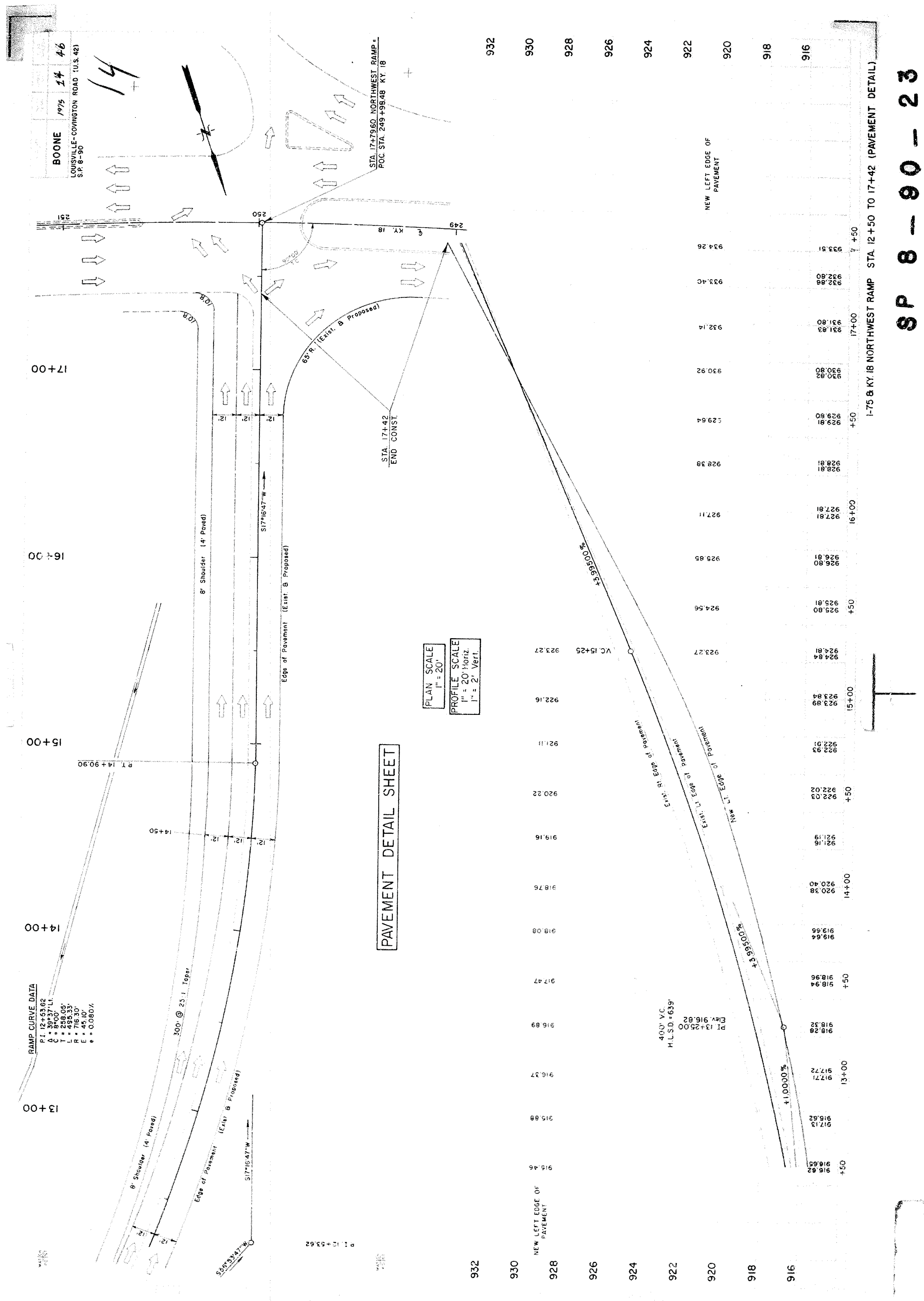
Ky 18 Median Revision PLAN & PROFILE STA. 247+00 TO STA. 253+57.96

SP 8-90-23



I-75 & KY. 18 NORTHWEST RAMP STA. 7+00 TO 12 +50 (PAVEMENT DETAIL)

SP 8 - 90 - 23


SP 8 – 90 – 23
I-75 & KY. 18 NORTHWEST RAMP STA. 12+50 TO 17+42 (PAVEMENT DETAIL)
BOONE
1975
14
46
LOUISVILLE-COVINGTON ROAD (U.S. 42)
S.P. 8-90
PAVEMENT DETAIL SHEET
PLAN SCALE
1" = 20'
PROFILE SCALE
1" = 20' Horiz.
1" = 2' Vert.
STA. 17+7960 NORTHWEST RAMP ℄
POC STA. 249+98.48 KY. 18
STA. 17+42
END CONST.
65' R. (Exist. & Proposed)
Edge of Pavement (Exist. & Proposed)
8' Shoulder (4' Paved)
S17°16'47"W
300' @ 25:1 Taper
RAMP CURVE DATA
NEW LEFT EDGE OF PAVEMENT
Exist. Rt. Edge of Pavement
Exist. Lt. Edge of Pavement
New Lt. Edge of Pavement
+3.9500%
+1.0000%
400' V.C.
PI 13+25.00
Elev. 916.82
P.T. 14+90.90

Boone Co US 590(9)
U168(15)
Sheet 15 of 46

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DESCRIPTION

This work shall consist of furnishing, installing and connecting complete traffic signal installation(s), with accessories, and placing in satisfactory condition. The work shall be performed in accordance with

1. Special Provision No. 81 Traffic Control Devices
2. Applicable drawings and plans
3. Kentucky Bureau of Highways Standard Specifications, latest edition with revisions
4. National Electrical Code, latest issue
5. Manual on Uniform Traffic Control Devices
6. Standards of the utility company serving the installation

The plans indicate the extent and general arrangement of the signal installation and are for general guidance. Any commission or omission shown or implied shall not be cause for deviating from the intent of the plans and specifications. If any modifications of the plans or specifications are deemed necessary by the Contractor, details of such modifications and the reasons therefore shall be submitted in writing to the Engineer for written approval prior to beginning such modified work.

Pole locations will be staked by the Engineer, and any necessary assistance shall be provided by the Contractor. Additional assistance will also be available from the Division of Traffic in the Central Office.

The Contractor shall use all possible care in excavating on this project so as not to disturb any existing utilities whether shown on the plans or not shown on the plans. Elevations and locations of existing utilities are approximate only. Any utilities disturbed or damaged by the Contractor through carelessness during his construction shall be replaced by the Contractor at no extra cost to the Department.

MATERIALS

General

All materials shall be approved prior to being utilized. The Contractor shall submit, for approval, five (5) copies of descriptive literature, drawings, and any requested design data for the materials he proposes to use. After approval, no substitutions for any approved materials may be made without the written approval of the Engineer.

Wire

All wire and cable shall be plainly marked in accordance with the provisions of the National Electrical Code. Grounding conductors shall be copper of the sizes indicated in the National Electrical Code unless otherwise specified. Service - entrance conductors installed on the service pole(s) shall be copper of the size and with the insulation specified by the National Electrical Code for service entrance conductors.

All signal cables shall be # 14 AWG with the number of conductors indicated and shall conform to IMSA 19-1-1967.

All induction loop wire shall be single - conductor, # 14 AWG, stranded Type THWN or THHN.

Loop lead-in cable shall be # 14 AWG, paired conductors, electrically shielded and conforming to IMSA 19-2-1967.

All other wire shall be single - conductor Type RHW or THW with sizes larger than # 12 AWG being stranded.

Conduit

Conduit shall be rigid steel unless otherwise specified. All rigid steel conduit shall be galvanized inside and out and shall conform to the Underwriters' Laboratories requirements for rigid metallic conduit.

Concrete

All concrete shall be Class A, conforming to the requirements of Section 403 of the 1965 Standard Specifications.

Ground Rods

All ground rods shall be composite shafts consisting of a pure copper exterior which has been inseparably molten welded to a steel core. The rods shall have a minimum diameter of 1/2" and a minimum length of 8'. The rods shall be equipped with copper or bronze clamps.

Wood Poles

All wood poles shall be Class 4 conforming to the requirements of ANSI 05.1

CONSTRUCTION METHODS

Wiring

All wiring shall conform to the provisions of the National Electrical Code unless otherwise shown on the plans. Where more than one circuit is installed within the same conduit, permanent circuit indentification numbers shall be affixed to the wires.

Conduit Installation

Rigid steel conduit encasement shall be provided for all conductors except for overhead installations, where conductors are run inside poles or cabinets and induction loop conductors sealed within pavements. All conduit installations shall conform to the provisions of the National Electrical Code except where directed otherwise. Bonded slip joints will be permitted for joining rigid conduit to junction boxes. Where a standard coupling cannot be used, an approved threaded union coupling shall be used. All conduit ends shall be reamed to remove burrs and sharp edges. Damaged portions of the galvanized surfaces and untreated threads resulting from field cuts shall be painted with a rust inhibitive paint. Conduit bends shall have a radius of not less than 12 times the nominal diameter of the conduit, unless otherwise shown on the plans.

Conduit which will not be subjected to regular pressure from traffic shall be laid to a depth of not less than 18". On transverse crossings under roadway surfaces and shoulders, the conduit shall be placed at a depth of not less than 24" below grade. The Contractor will not be permitted to cut any pavement in carrying out this work. All pavement crossings shall be made by placing conduit in the subgrade prior to paving or by jacking or boring under existing pavements. After the conduit has been installed and before backfilling is started, the conduit installation shall be inspected and approved by the Engineer.

In backfilling trenches, the backfill material shall be placed and compacted in lifts of 9" or less. Any area disturbed as a result of the Contractor's operations shall be restored to the satisfaction of the Engineer. Conduits, junction boxes, metal poles, and control boxes throughout the signal system shall be bonded together and bonded to all ground rods by using grounding bushings on the conduit ends. These conduits shall be bonded to the electrical system ground.

Splicing

All splices shall conform to the provisions of the National Electrical Code unless otherwise shown on the plans. Splices shall be made with mechanical connectors of a type approved by the Engineer or shall be twisted and soldered. Splices shall be protected by a double spiral wrapping of rubber tape, a double spiral wrapping of friction tape, and a thorough painting of the completed splice with an insulating electrical paint.

Painting

Ungalvanized or damaged surfaces of exposed junction boxes, pull boxes, etc. shall be given one coat of red lead, and two coats of aluminum paint after the installation is completed. For items fabricated from galvanized or non-ferrous alloys, which are inherently rust resistant, painting is required only on damaged surfaces.

ACCEPTANCE REQUIREMENTS

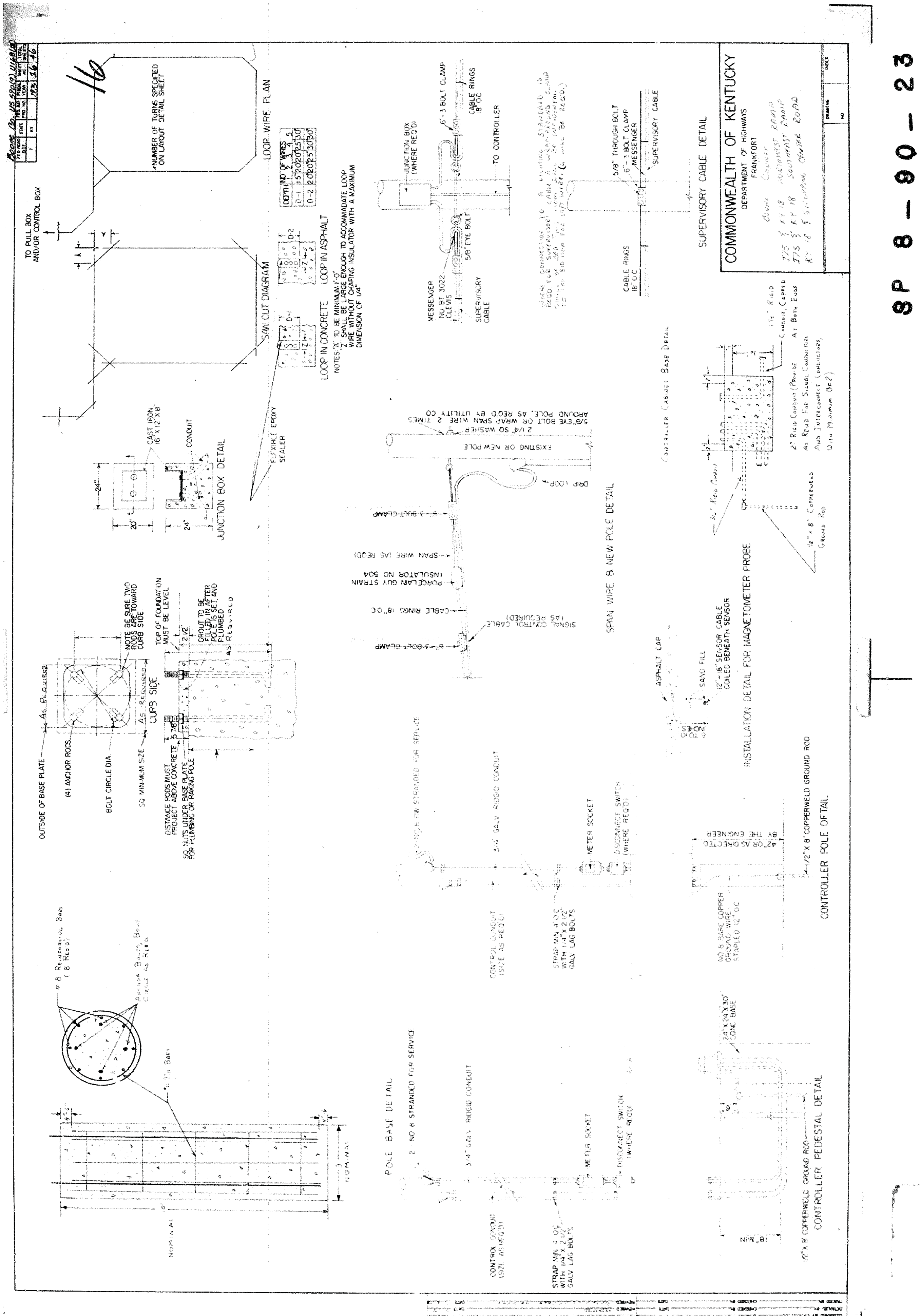
After the installation(s) is completed and at such time as the Engineer shall direct, the Contractor shall conduct an operating test for approval. The test shall demonstrate that the system operates in accordance with the plans and specifications. Induction loop conductors shall test free of shorts and unauthorized grounds and shall have an insulating resistance of ten (10) meghoms when tested with a 500-volt direct current potential in a reasonably dry atmosphere between conductors and ground.

MEASUREMENT AND PAYMENT

Measurement of the completed work will be made in the units shown on the plans and in the proposal. Payment for the completed work will be made at the contract unit prices. Such payment shall be full compensation for installing and placing complete signal installation in satisfactory operation.

BOONE COUNTY
I-75 & KY 18 NORTHWEST RAMP
I-75 & KY 18 SOUTHEAST RAMP
KY 18 & SHOPPING CENTER ROAD

SP 8 – 90 – 23


COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
SP 8 - 90 - 23
LOOP WIRE PLAN
SAW CUT DIAGRAM
LOOP IN CONCRETE
LOOP IN ASPHALT
NOTES: "A" TO BE MINIMUM 1'-0"
"Z" SHALL BE LARGE ENOUGH TO ACCOMMADATE LOOP WIRE WITHOUT CHAFING INSULATOR WITH A MAXIMUM DIMENSION OF 1/4"
NUMBER OF TURNS SPECIFIED ON LAYOUT DETAIL SHEET
TO PULL BOX AND/OR CONTROL BOX
FLEXIBLE EPOXY SEALER
SUPERVISORY CABLE DETAIL
JUNCTION BOX DETAIL
CAST IRON 16"x12"x8"
CONDUIT
SPAN WIRE & NEW POLE DETAIL
EXISTING OR NEW POLE
DRIP LOOP
SPAN WIRE (AS REQ'D)
PORCELAIN GUY STRAIN INSULATOR NO 504
CABLE RINGS 18" O.C.
SIGNAL CONTROL CABLE (AS REQUIRED)
INSTALLATION DETAIL FOR MAGNETOMETER PROBE
ASPHALT CAP
SAND FILL
12"-18" SENSOR CABLE COILED BENEATH SENSOR
CONTROLLER CABINET BASE DETAIL
OUTSIDE OF BASE PLATE
(4) ANCHOR RODS
BOLT CIRCLE DIA
SQ MINIMUM SIZE
CURB SIDE
TOP OF FOUNDATION MUST BE LEVEL
NOTE: BE SURE TWO RODS ARE TOWARD CURB SIDE
GROUT TO BE FILLED IN AFTER POLE IS SET AND PLUMBED
DISTANCE RODS MUST PROJECT ABOVE CONCRETE
SQ NUTS UNDER BASE PLATE FOR PLUMBING OR RAKING POLE
POLE BASE DETAIL
CONTROLLER POLE DETAIL
CONTROLLER PEDESTAL DETAIL
METER SOCKET
DISCONNECT SWITCH (WHERE REQ'D)
3/4" GALV. RIGID CONDUIT
24"x24"x30" CONC BASE
1/2"x8' COPPERWELD GROUND ROD
NOMINAL

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
BOONE	1975	17	46

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KY 18 & I 75 NORTHWEST RAMP
SEQUENCE AND PHASE CHART

S/H	ØA R/W	ØA CLEAR	ØB R/W	ØB CLEAR	FLASH
1	G	Y	R	R	Y
2	G	Y	R	R	Y
3	G	Y	R	R	Y
4	G	Y	R	R	Y
5	R	R	←G	Y	R
6 & 7	R	R	G→	Y	R

S/H 1-4: R 8"/12", Y 8"/12", G 8"/12"
S/H 5: ←G; S/H 6,7: G→ (R 8"/12", Y 8"/12", G 12")

ØA ØB

WIRING DIAGRAM

CABLE	FROM	TO
14/3	CC	S/H 1,2
14/3	CC	S/H 3,4
14/3	CC	S/H 5,6,7

Controller shall be 2-phase, 3-dial, electromechanical, and shall be in conformance with Special Provision 81-A. This unit shall be a secondary controller.

LEGEND

[illegible]

Wood Pole, 45' Class 4

Anchor

[illegible]

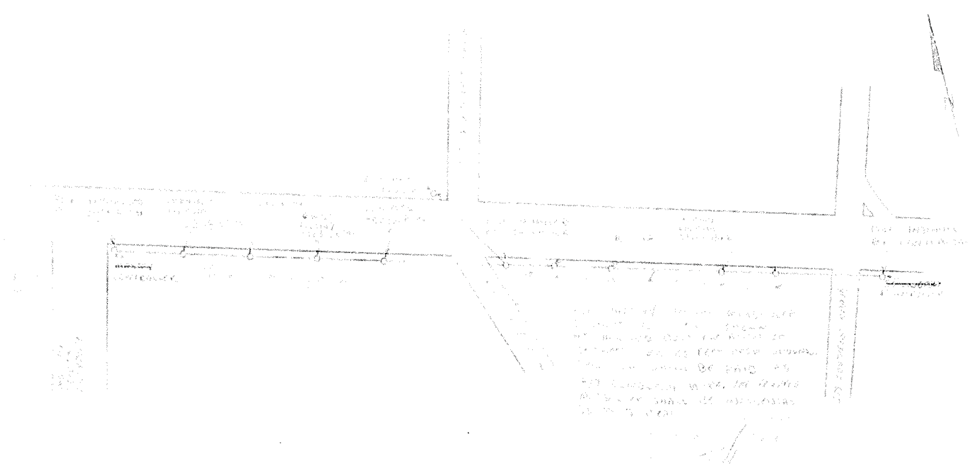
Controller Cabinet

ESTIMATE OF QUANTITIES

Code	Item	Unit	Quantity
[illegible]	45' Wood Pole	Each	6
[illegible]	Anchor	Each	6
[illegible]	8" Signal Section (Furnish & Install)	Each	58
[illegible]	12" Signal Section (Furnish & Install)	Each	11
[illegible]	Signal Controller (Furnish & Install)	Each	3
[illegible]	Wire #14/3C ... (Furnish & Install)	Lin. Ft.	500
[illegible]	Wire ... (Furnish & Install)	Lin. Ft.	1500
6885	Messenger ... (Furnish & Install)	Lin. Ft.	900
2914	Conduit - 2½"	Lin. Ft.	140

Notes Relating To Unit Bid Items

[illegible]



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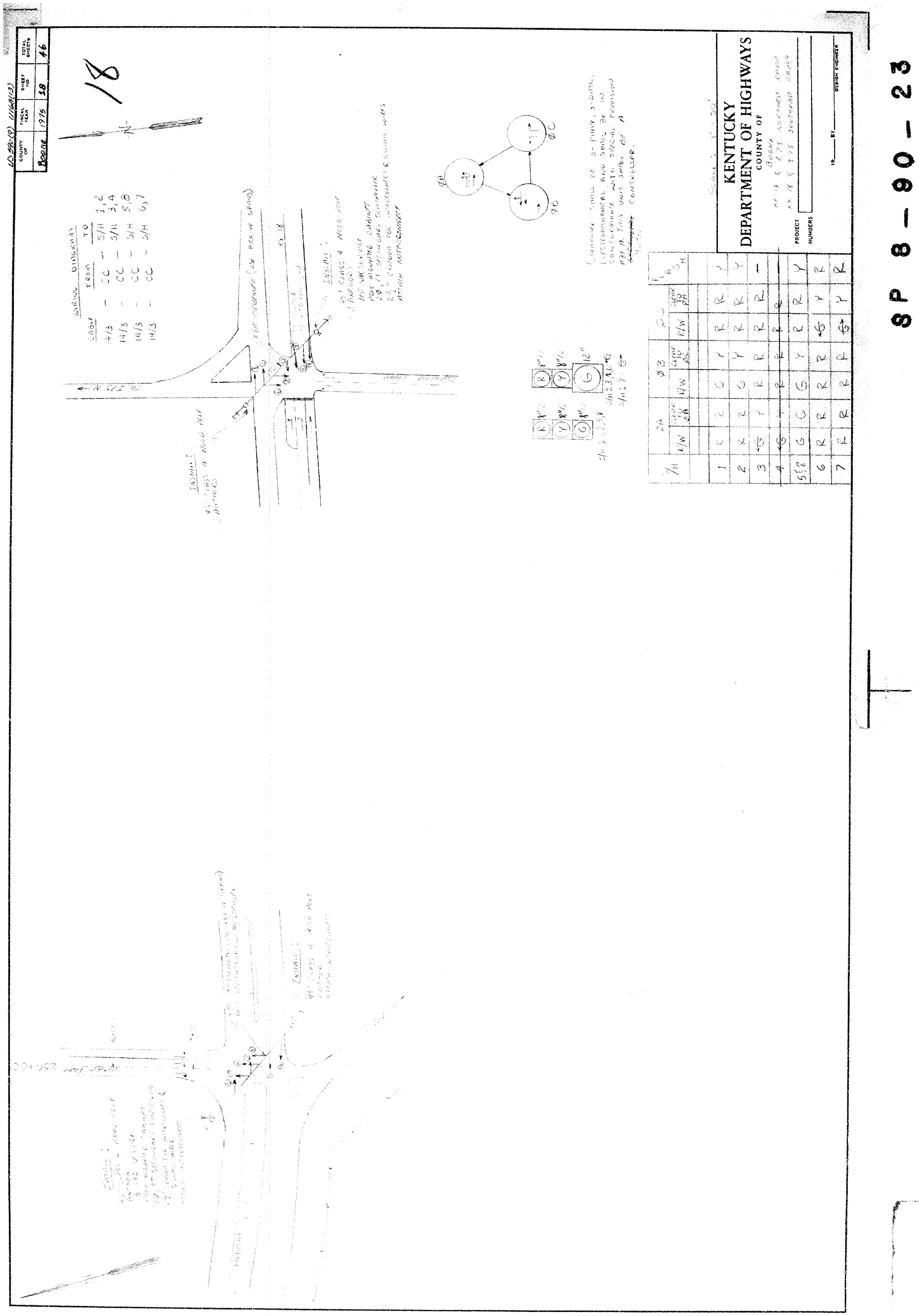
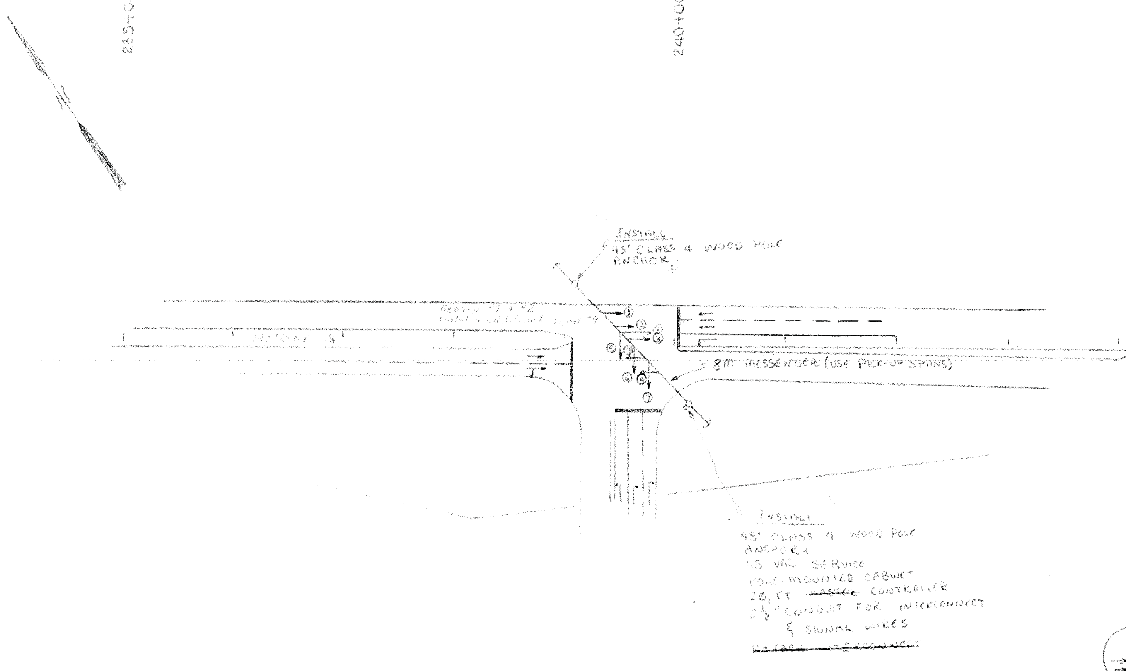
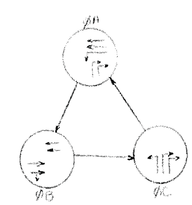
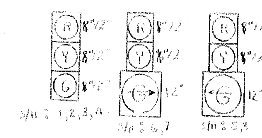

KENTUCKY
DEPARTMENT OF HIGHWAYS
COUNTY OF
PROJECT NUMBERS
DESIGN ENGINEER
COUNTY OF
FISCAL YEAR
SHEET NO.
TOTAL SHEETS
Boone
1975
18
46
18
SP 8-90-23

US 590(9) U168(13)			
COUNTY OF	FISCAL YEAR	SHEET NO	TOTAL SHEETS
BOONE	1979	19	46

19







S/H	ΦA		ΦB		ΦC		FLASH
	R/W	CLEAR TO ΦB	R/W	CLEAR TO ΦC	R/W	CLEAR TO ΦA	
1	G	G	G	Y	R	R	Y
2	G	G	G	Y	R	R	Y
3	R	R	G	Y	R	R	Y
4	R	R	G	Y	R	R	Y
5	R	R	R	R	←G	Y	R
6	G→	Y	R	R	G→	G→	R
7	G→	Y	R	R	G→	G→	R
8	←G	Y	R	R	R	R	—

CONTROLLER SHALL BE 3-PHASE, 3-DIAL, ELECTROMECHANICAL, AND SHALL BE IN CONFORMANCE WITH SPECIAL PROVISION #81-A. THIS UNIT SHALL BE A CONTROLLER.

WIRING DIAGRAM

CABLE	FROM	TO
14/3	CC	S/H 1,2
14/3	CC	S/H 3,4
14/3	CC	S/H 5
14/3	CC	S/H 6,7
14/3	CC	S/H 8
14/3		

SCALE: 1" = 50'

KENTUCKY
DEPARTMENT OF HIGHWAYS
COUNTY OF
BOONE
KY. 18 & FLORENCE MALL

PROJECT NUMBERS

19___ BY___ DESIGN ENGINEER

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Boone Co. U.S. 590 (9) ... Sheet 20 of 46 1975

GUARD RAIL FLARE DIMENSIONS ①

W ②③④	Z ⑥ (Min.)	Guardrail Flare Length	Distance Along Tan. ("L")	Offset To Face of Guardrail
—	—	0.0	0.00	0.00
—	—	12.5	12.50	0.06
—	—	25.0	25.00	0.25
—	—	37.5	37.50	0.55
—	—	50.0	49.98	0.98
—	—	62.5	62.48	1.53
2	125.0	75.0	74.96	2.21
3	112.5	87.5	87.43	3.01
4	100.0	100.0	99.90	3.93
5	87.5	112.5	112.35	4.97
6	75.0	125.0	124.80	6.13
7	62.5	137.5	137.23	7.42
9	50.0	150.0	149.65	8.83
10	37.5	162.5	162.06	10.36
12	25.0	175.0	174.45	12.01
14	12.5	187.5	186.82	13.78
16	0.0	200.0	199.18	15.68
18	0.0	212.5	211.52	17.69
20	0.0	225.0	223.83	19.83
22	0.0	237.5	236.13	22.09
24	0.0	250.0	248.40	24.47
27	0.0	262.5	260.64	26.96
30	0.0	275.0	272.87	29.58
32	0.0	287.5	285.06	32.32
35	0.0	300.0	297.23	35.18
38	0.0	312.5	309.37	38.16
41	0.0	325.0	321.48	41.25
44	0.0	337.5	333.56	44.47
48	0.0	350.0	345.61	47.80

Note: All figures shown are in feet.

① The above chart is for use with Type 2A, 3, and 4 End Treatment. See Plans for location and type.

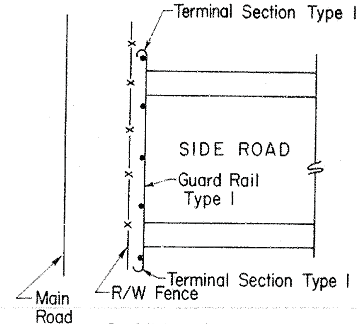
② W= Offset distance from normal guardrail alignment to face of rail at End Treatment location.

③ For End Treatment Type 2A, use a "W" of greater than 6'-0".

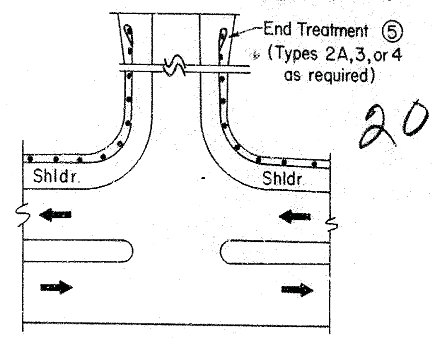
④ Fc: End Treatment Type 4:
  a. Roadway Classes 4, 5, and 6, W= 4'-0" in fill.
  b. Roadway Classes 1, 2, 3, and Special Design, W=6'-0" in fills.

⑤ For other related details, see the following drawings: "Typical Guardrail Installations" (Sheet 2 of 2), and "Typical Installation For End Treatments Type 2A, 3, and 4".

⑥ Z= Normal Guardrail Installation.

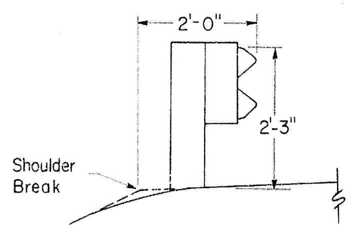


GUARD RAIL USED AS A BARRICADE

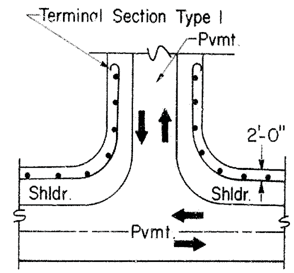


20

RAISED MEDIAN WITH OPENING AND APPROACH ROAD



NORMAL GUARD RAIL INSTALLATION



ENTRANCES

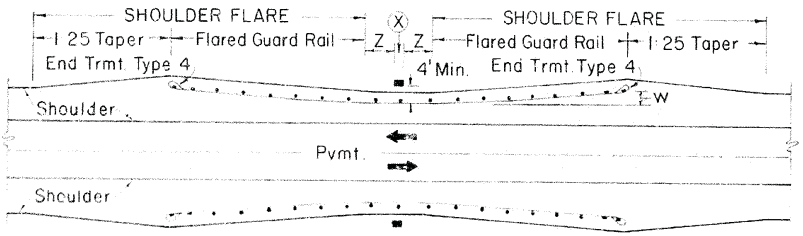
Sheet 1 of 2

KENTUCKY
BUREAU OF HIGHWAYS

TYPICAL GUARDRAIL INSTALLATIONS

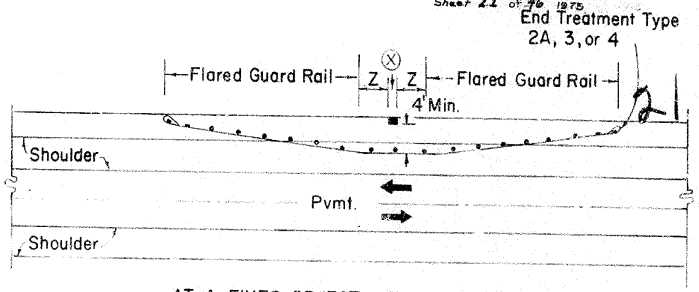
STANDARD DRAWING No.
SUBMITTED [signature] DIRECTOR DIVISION OF DESIGN 6-30-75 DATE
APPROVED STATE HIGHWAY ENGINEER DATE

SP 8 - 90 - 23



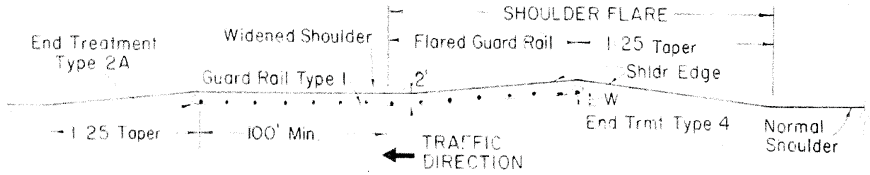
AT A FIXED OBJECT - TWO WAY TRAFFIC (Fill)

FIGURE 1



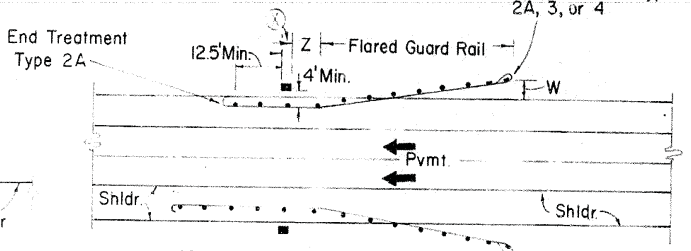
AT A FIXED OBJECT - TWO WAY TRAFFIC (CUT)

FIGURE 4



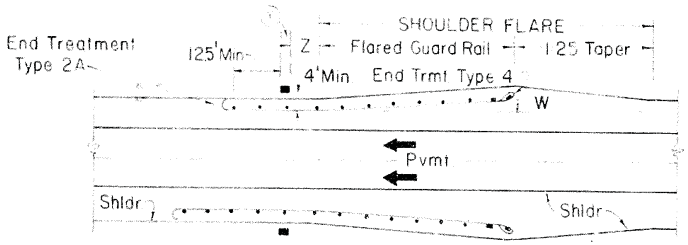
ONE DIRECTION TRAFFIC - FOR SHOULDERS LESS THAN 12' (Fill)

FIGURE 2



AT A FIXED OBJECT - ONE WAY TRAFFIC (CUT)

FIGURE 5



AT A FIXED OBJECT - ONE WAY TRAFFIC (Fill)

FIGURE 3

GENERAL APPLICATION OF END TREATMENTS

(a.) Solid Rock Cuts without adequate vehicle recovery zone behind Guardrail, use End Treatment Type 2A.

(b.) Earth Cuts and Soft Rock Cuts, use End Treatment Type 3.

(c.) All Fill; also Solid Rock Cuts with adequate vehicle recovery zone behind Guardrail: use end Treatment Type 4.

(X) For multiple fixed objects, specify "X" in 12'-6" increments. For single objects - "X" = 0.

■ Objects such as (Piers, Near or at Grade Culverts, Post, or Pole located in the safety zone and not having breakaway feature.

Z and X = Normal guardrail installation.

See "Typical Guard Rail Installations" (sheet 1 of 2) to determine W and Z distances.

Sheet 2 of 2

KENTUCKY
BUREAU OF HIGHWAYS

TYPICAL
GUARD RAIL
INSTALLATIONS

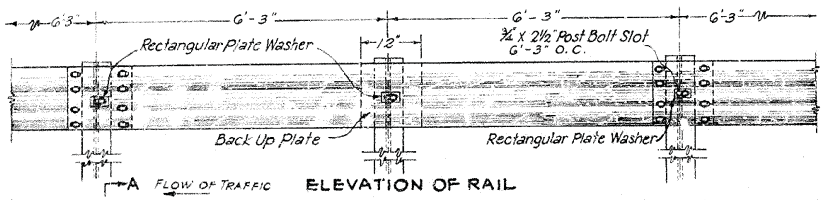
STANDARD DRAWING NO.

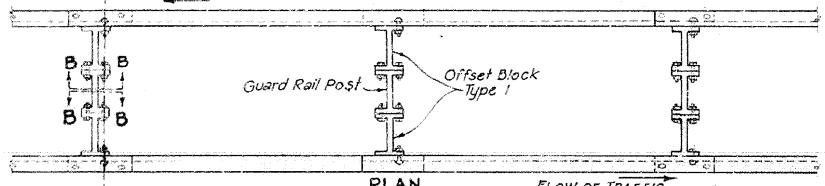
SUBMITTED E B Bridges 4-9-75
DIRECTOR DIVISION OF DESIGN DATE

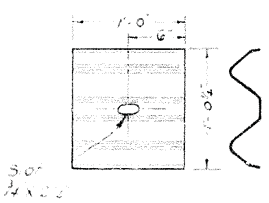
APPROVED
STATE HIGHWAY ENGINEER DATE

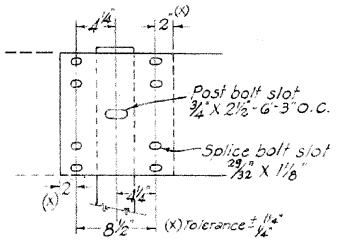
SP 8 - 90 - 23

22

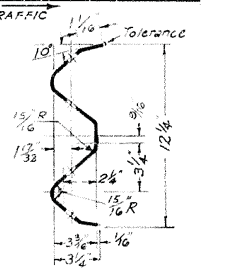








③ 8 - ⅝ x 1¼ Button Head Bolts Nuts and Washers Required



STEEL BEAM GUARD RAIL
SINGLE RAIL

BID ITEMS

Steel Beam Guard Rail Type 1 shall be 12 ga. with 6'-3" post spacing.

DOUBLE RAIL

Steel Beam Guard Rail Type 2 shall be 12 ga double rail with 6'-3" post spacing

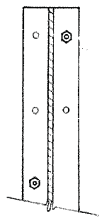
See Detail Sheet "Guard Rail Components" for all necessary hardware, posts, Offset Blocks, and incidentals necessary to construct the Guard Rail.

Dimensional tolerances not shown or implied are intended to be those consistent with the proper functioning of the part, including its appearance and accepted manufacturing practices.

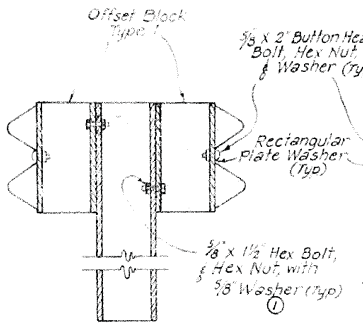
① Connect Offset Block Type 1 to Steel and Concrete Guard Post with two diagonally located bolts.

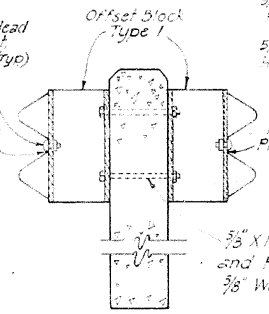
The same type of rail element, post, fastenings and accesories shall be used throughout the work.

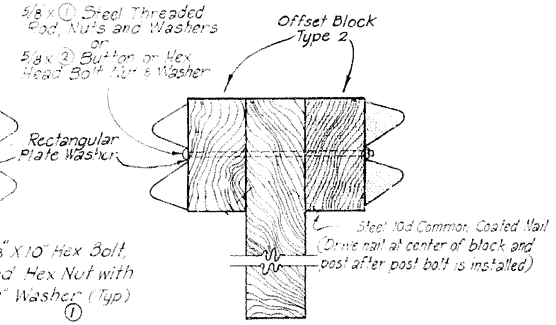
All laps shall be in direction of traffic flow.



Required for Double Rail
Not required for Single Rail







Post and Block width plus :
① 2½"
② 2

KENTUCKY
BUREAU OF HIGHWAYS

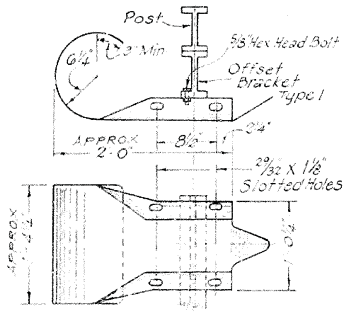
STEEL BEAM
GUARD RAIL

STANDARD DRAWING No.

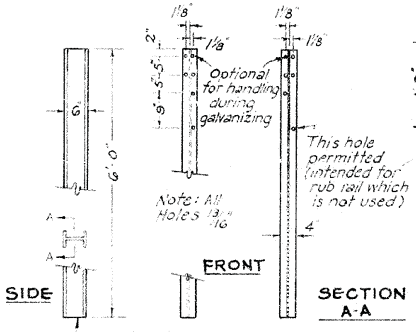
SUBMITTED E B Drake 7/16/79
Asst. DIRECTOR DIVISION OF DESIGN DATE

APPROVED
STATE HIGHWAY ENGINEER DATE

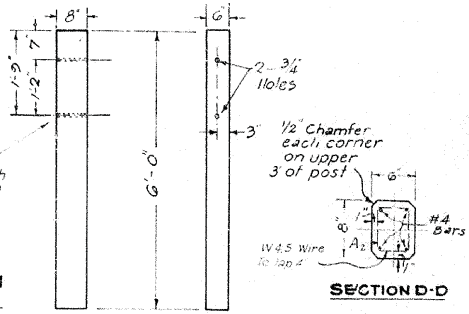
SP 8 - 90 - 23



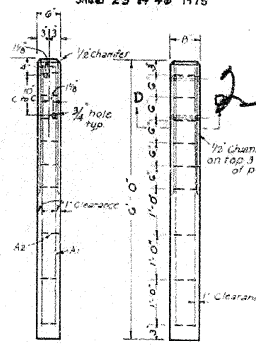
TERMINAL SECTION TYPE 1



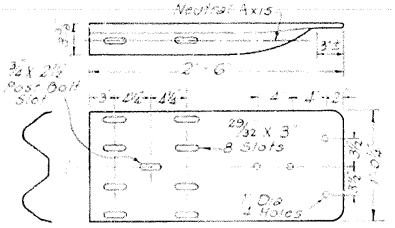
STEEL POST



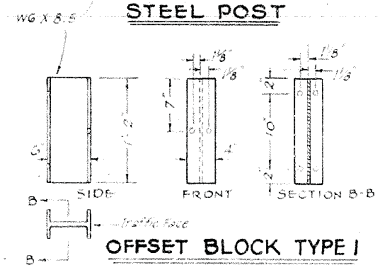
TIMBER POST
GRADE "A" TREATED-SAWED



CONCRETE POST



TERMINAL SECTION TYPE 2



OFFSET BLOCK TYPE 1

NOTES

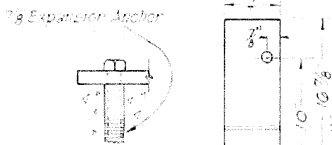
This drawing depicts components relating to Guard Rail installation.

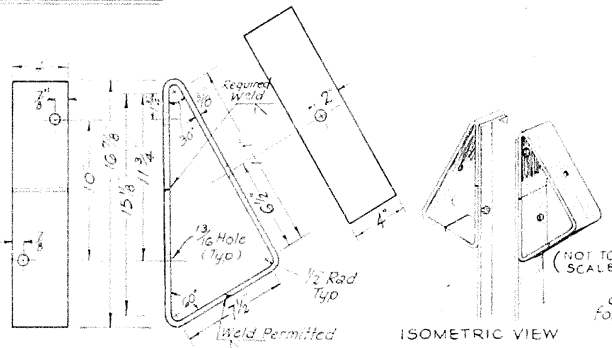
Basis of payment for Terminal Sections Type 1 and 2 shall be paid for at the contract unit price bid each complete and installed.

Materials: Anchor Plates shall be made of the same material as the post and shall be shop welded and galvanized after fabrication with the same galvanizing requirements as the post.

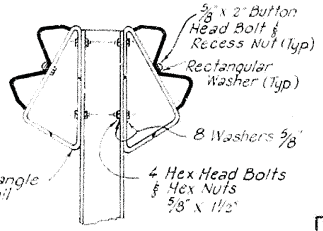
Terminal Section Type 2 shall be 10 gage galvanized steel and when splice holes are exposed either front or back in the completed structure, rectangular plate washer shall be required. Two inch (2") splice bolts shall be used if needed. Terminal Section Type 1 shall be 12 gage galvanized steel.

Construction: The rail element shall be shop curved when the placement of guard rail is on a curve having a radius of 150 feet or less. No additional payment shall be allowed for this work.

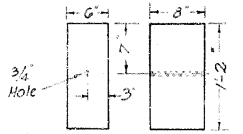




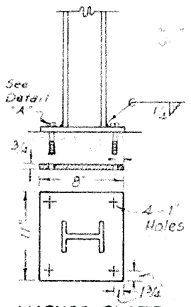
ANGLE BRACKET



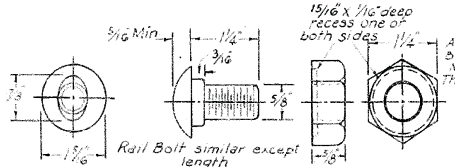
BILL OF REINFORCEMENT						
MARK	TYPE	NO. EACH POST	SIZE	LENGTH FT	LENGTH IN.	LOCATION
A1	STR	4	#4	5	5	Vertical Bars
A2	BENT	3	W4.5	2	1	Tie Bars



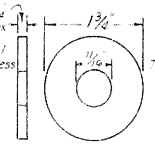
OFFSET BLOCK TYPE 2



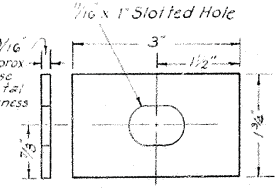
ANCHOR PLATE



5/8" BUTTON HEAD BOLT & RECESS NUT



WASHER



RECTANGULAR PLATE WASHER

KENTUCKY
BUREAU OF HIGHWAYS

GUARD RAIL
COMPONENTS

STANDARD DRAWING No.

SUBMITTED E.B. Drake 6/24/75
DIRECTOR DIVISION OF DESIGN — DATE

APPROVED
STATE HIGHWAY ENGINEER — DATE

DRAWN
CHECKED
RECOMMENDED

SP 8 - 90 - 23

Boone Co. US 590(91)(C8/9) Sheet 24 of 46 1975

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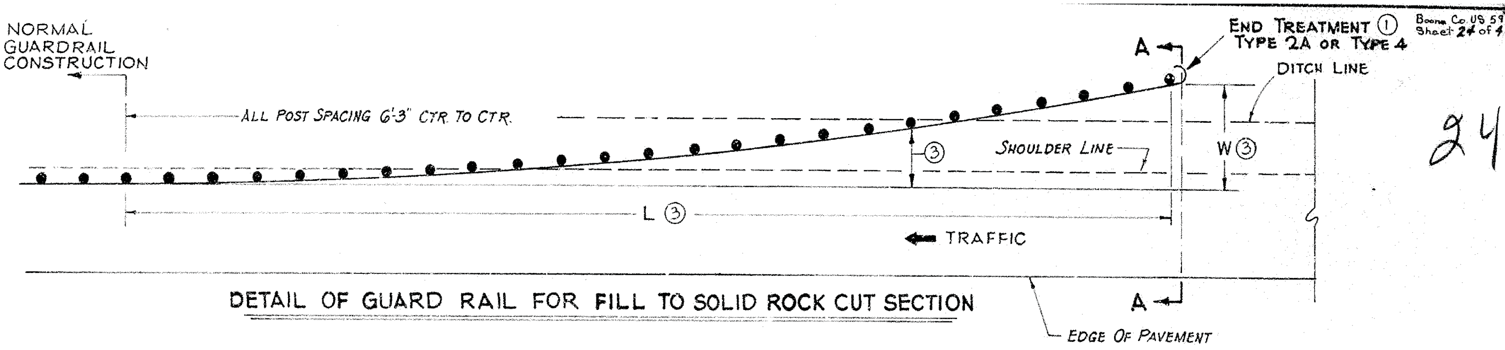
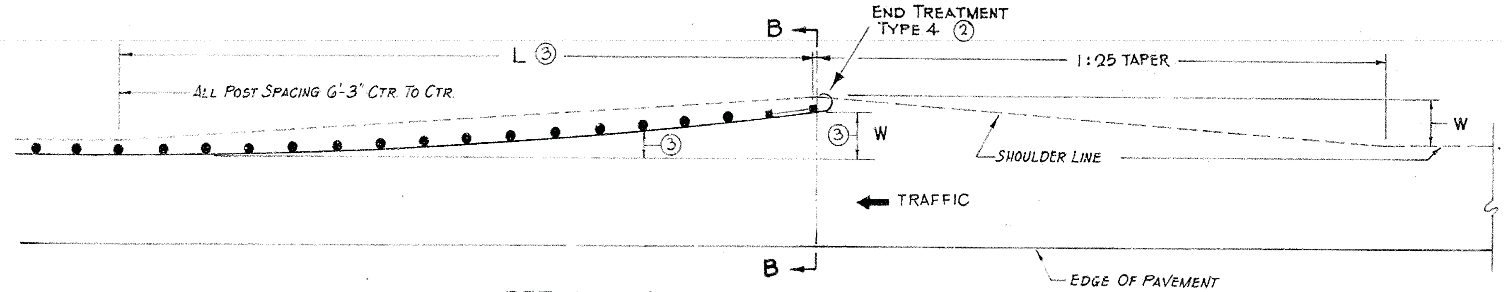
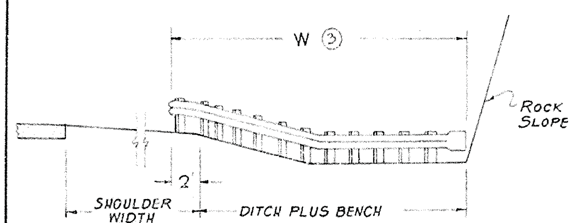


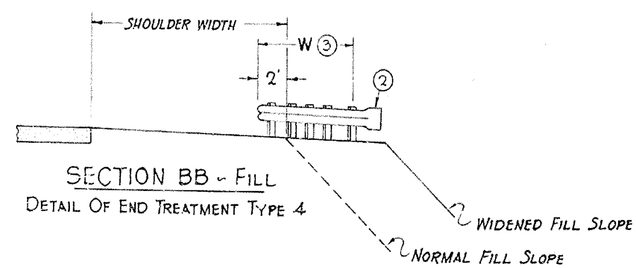
DETAIL OF GUARD RAIL FOR FILL TO SOLID ROCK CUT SECTION



DETAIL OF GUARD RAIL FOR FILL SECTION



SECTION AA - SOLID ROCK CUT
DETAIL OF END TREATMENT TYPE 2A OR TYPE 4



SECTION BB - FILL
DETAIL OF END TREATMENT TYPE 4

...PRIMARY USE...

END TREATMENT TYPE 2A
① SOLID ROCK CUTS WITHOUT AN ADEQUATE RECOVERY ZONE

END TREATMENT TYPE 4
① SOLID ROCK CUTS WITH AN ADEQUATE RECOVERY ZONE
② FILLS

③ SEE CHART ON SHEET NO. ______ FOR "L" - "W" & OFFSET DISTANCES TO FACE OF RAIL

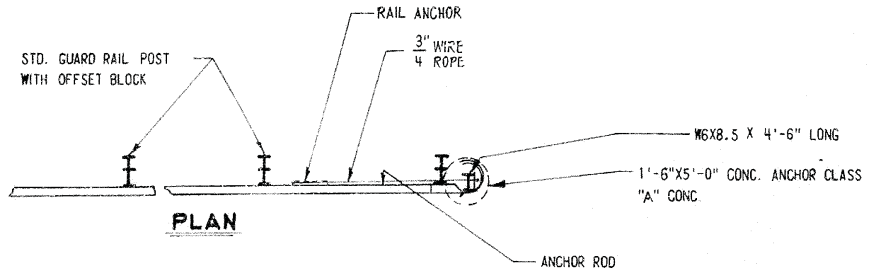
KENTUCKY
BUREAU OF HIGHWAYS

TYPICAL INSTALLATION FOR END TREATMENTS TYPE 2A AND TYPE 4

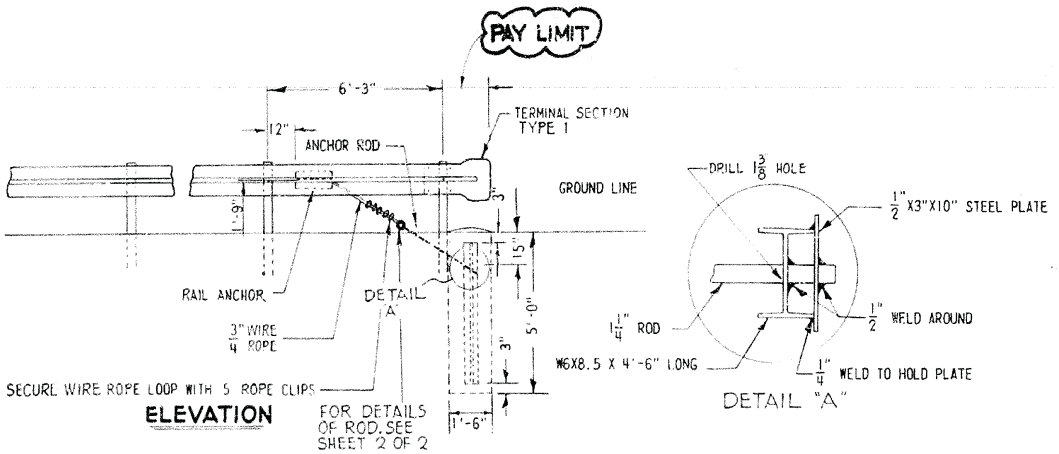
STANDARD DRAWING No.
SUBMITTED E. B. [signature] DIRECTOR DIVISION OF DESIGN 4-9-75 DATE
APPROVED ______ STATE HIGHWAY ENGINEER ______ DATE

SP 8-90-23

25



PLAN



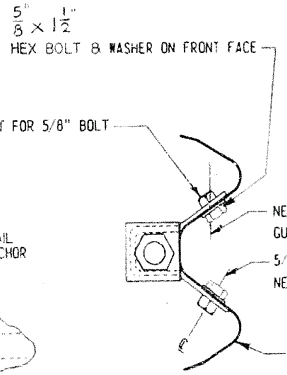
ELEVATION

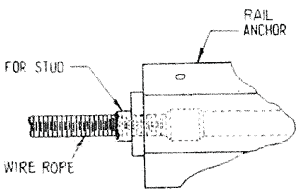
DETAIL "A"

BASE OF CLIP BEARS AGAINST THE LIVE END OF THE WIRE ROPE

APPLYING U-BOLT WIRE ROPE CLIPS

SPACE WIRE ROPE CLIPS 5" APART





SWAGED CONNECTOR FOR 3/4" WIRE ROPE

Method Of Measurement And Basis Of Payment

"End Treatment Type 2A" shall be to the pay limits as detailed and the contract unit price bid each shall include Terminal Section Type 1, Class 'A' Concrete, Swage Fittings, Steel Rod, Wire Rope, Rail Anchor, and all other hardware and fittings necessary for a complete installation as detailed.

Note

In the event Solid Rock is encountered in the Anchor, the Post Anchor (See Detail A) may be shortened, provided, it extends into the Solid Rock a minimum of 3 Feet.

Form the top 4" of the concrete anchor and crown ½" to drain. A construction joint will not be permitted in the anchor.

SHEET 1 OF 2

KENTUCKY
BUREAU OF HIGHWAYS

END TREATMENT TYPE 2A

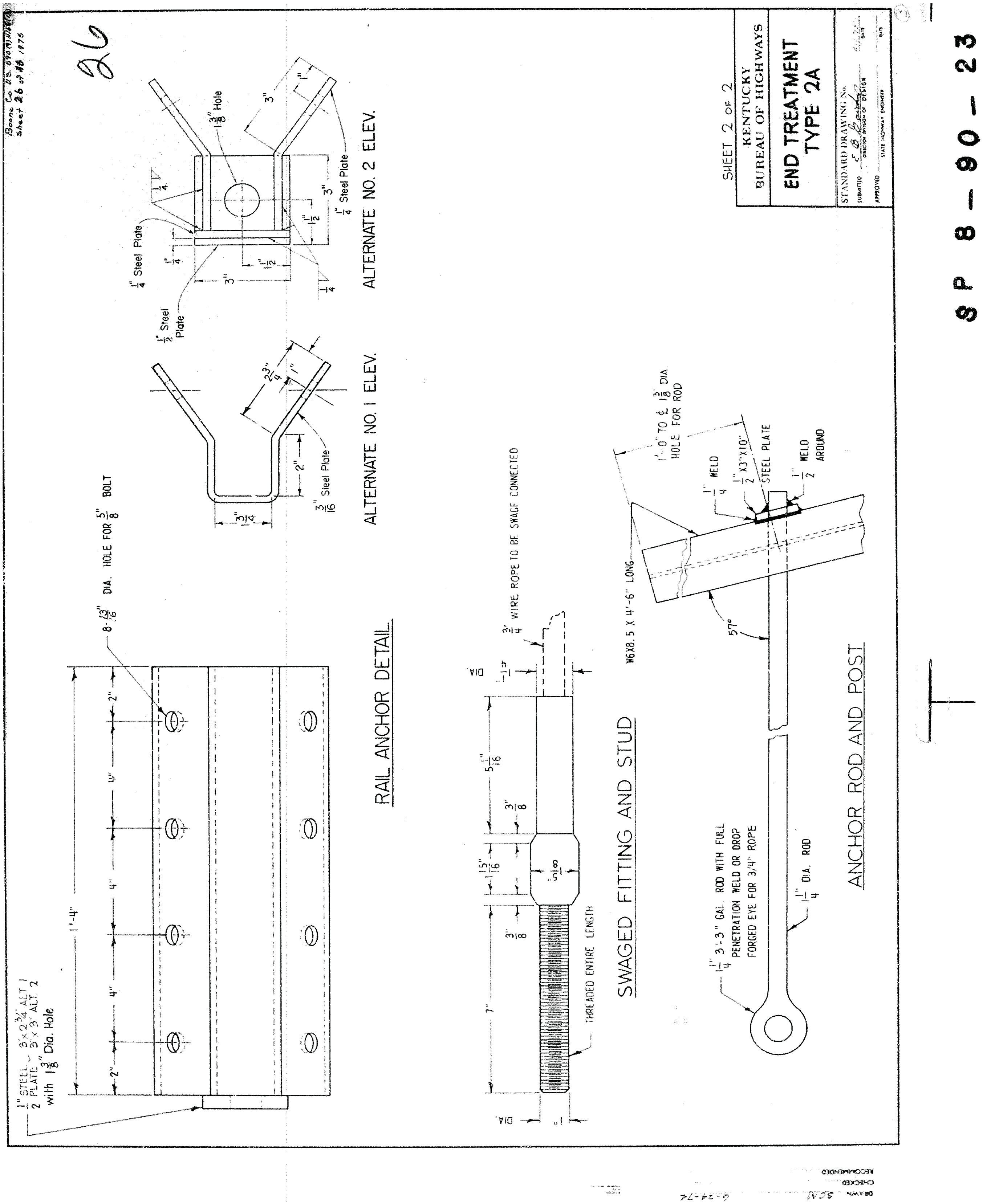
STANDARD DRAWING No.

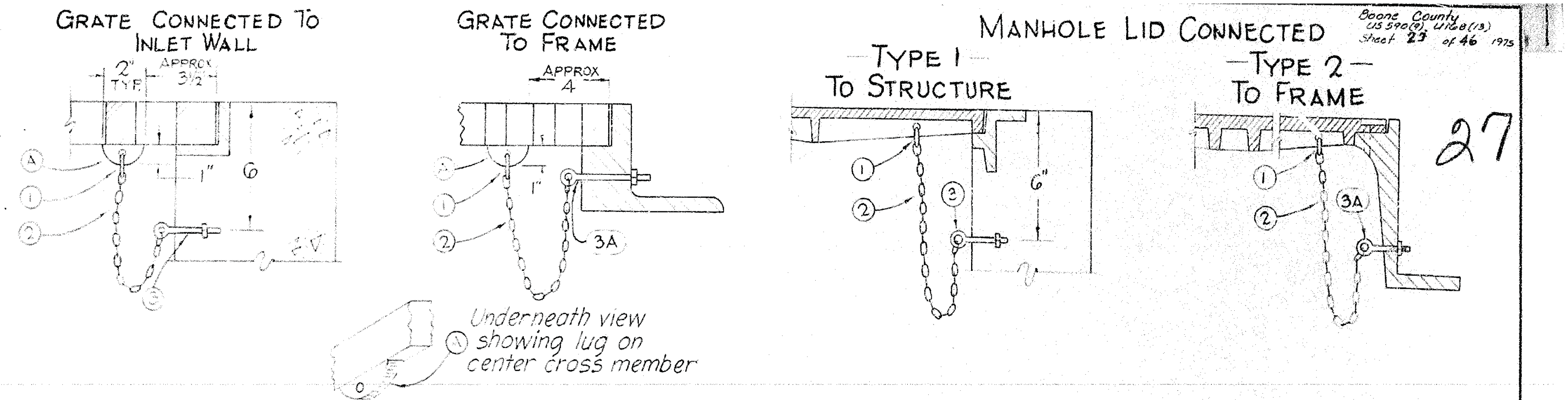
SUBMITTED E O Parker DIRECTOR DIVISION OF DESIGN 8-9-74 DATE

APPROVED STATE HIGHWAY ENGINEER DATE

DRAWN
CHECKED
RECOMMENDED

SP 8 - 90 - 23


SHEET 2 OF 2
KENTUCKY
BUREAU OF HIGHWAYS
END TREATMENT
TYPE 2A
STANDARD DRAWING No.
SUBMITTED
APPROVED
SP 8 – 90 – 23
RAIL ANCHOR DETAIL
ALTERNATE NO. 1 ELEV.
ALTERNATE NO. 2 ELEV.
SWAGED FITTING AND STUD
ANCHOR ROD AND POST
8 - 13/16" DIA. HOLE FOR 5/8" BOLT
1/2" STEEL PLATE - 3"x 2 3/4" ALT 1, 3"x 3" ALT 2 with 1 3/8" Dia. Hole
1'-4"
1 3/8" Hole
1/4" Steel Plate
1/2" Steel Plate
3/16" Steel Plate
3/4" WIRE ROPE TO BE SWAGE CONNECTED
THREADED ENTIRE LENGTH
W6X8.5 X 4'-6" LONG
1'-0" TO ℄ 1 3/8" DIA. HOLE FOR ROD
1/4" WELD
1/2" X3"X10" STEEL PLATE
1/2" WELD AROUND
57°
1 1/4" 3'-3" GAL. ROD WITH FULL PENETRATION WELD OR DROP FORGED EYE FOR 3/4" ROPE
1 1/4" DIA. ROD
DRAWN
CHECKED
RECOMMENDED
6-24-74



Typical Illustrations for Castings

Notes

(1) Chain shackle, or cold shut of a an approved type

(2) Straight chain (Minimum Size 1/0 - Variable Length) Sufficient to allow removal and displacement of Grate or Lid

(3) 3/8" x 3" Eye Bolt and Nut

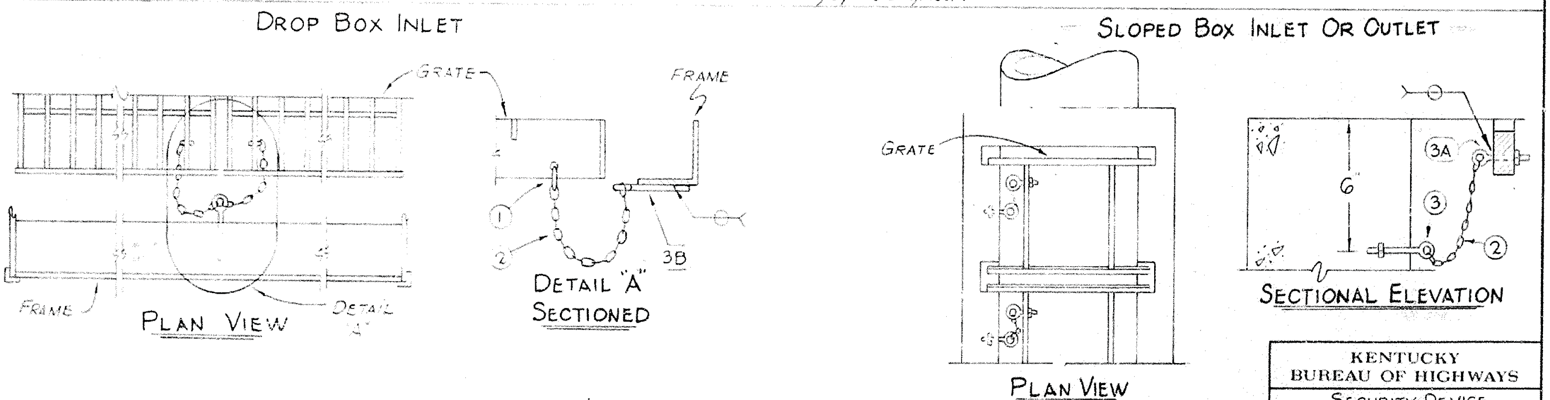
(3A) 3/8" Eye Bolt, Nut and Washer (Length determined by thickness of the Frame or Grate)

(3B) 3/8" Eye Bolt (Length determined by the Frame dimension)

All hardware shall be galvanized and of commercial quality and shall be approved by the Engineer.

The cost of the complete security device, installed shall be incidental to the cost of the structure.

The designs shown are acceptable; however are subject to change if approved in writing by the Engineer.



Typical Illustrations for Structural Steel Units

KENTUCKY
BUREAU OF HIGHWAYS

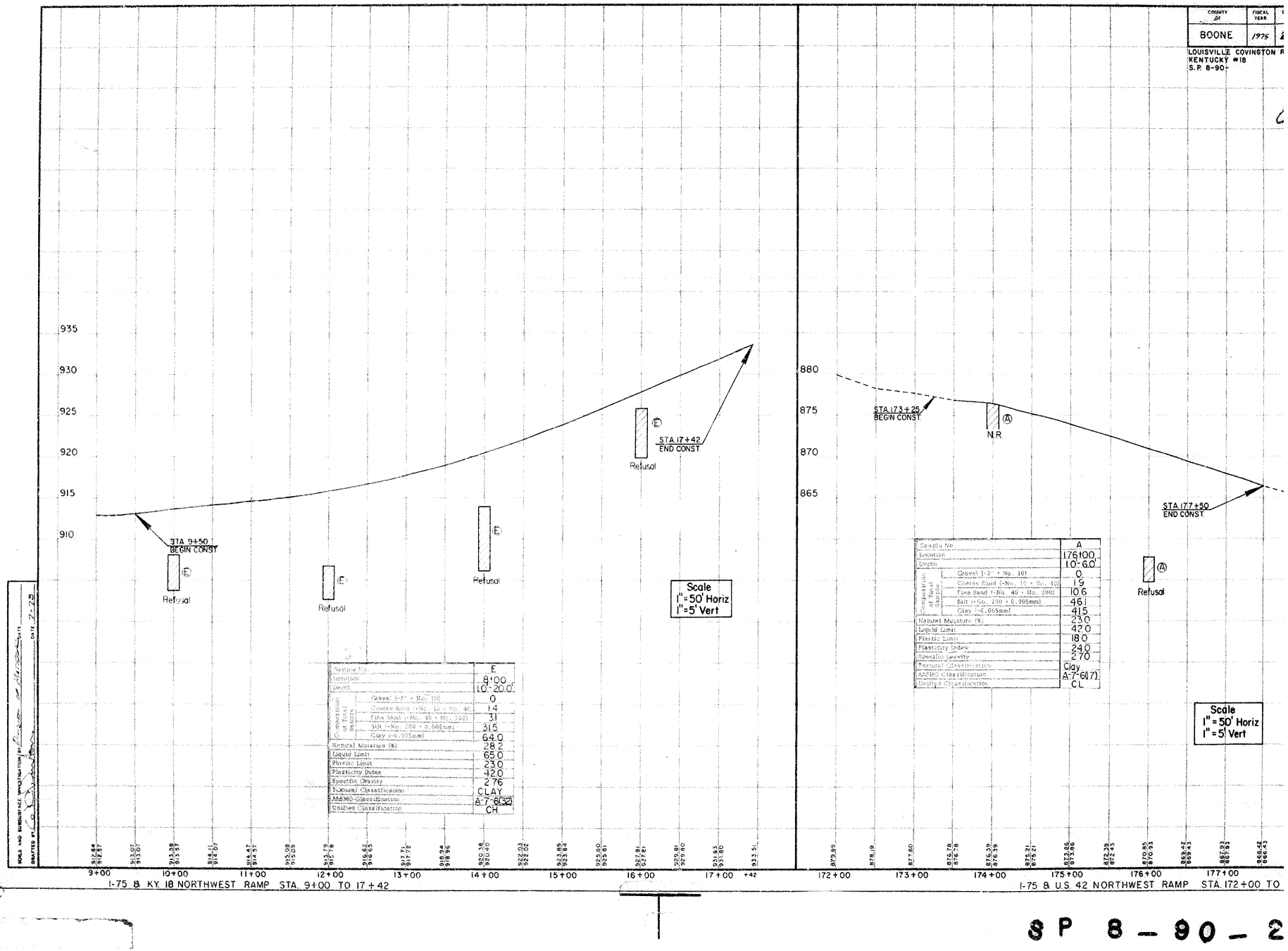
Security Device For Cast Iron And Structural Steel Frames-Grates And Lids

STANDARD DRAWING No.
SUBMITTED E. B. Drake, Ass't. Director Division of 3/19/75
APPROVED STATE HIGHWAY ENGINEER

SP 8-90-23

COUNTY	FISCAL YEAR
BOONE	1975

LOUISVILLE COVINGTON R
KENTUCKY #18
S.P. 8-90-

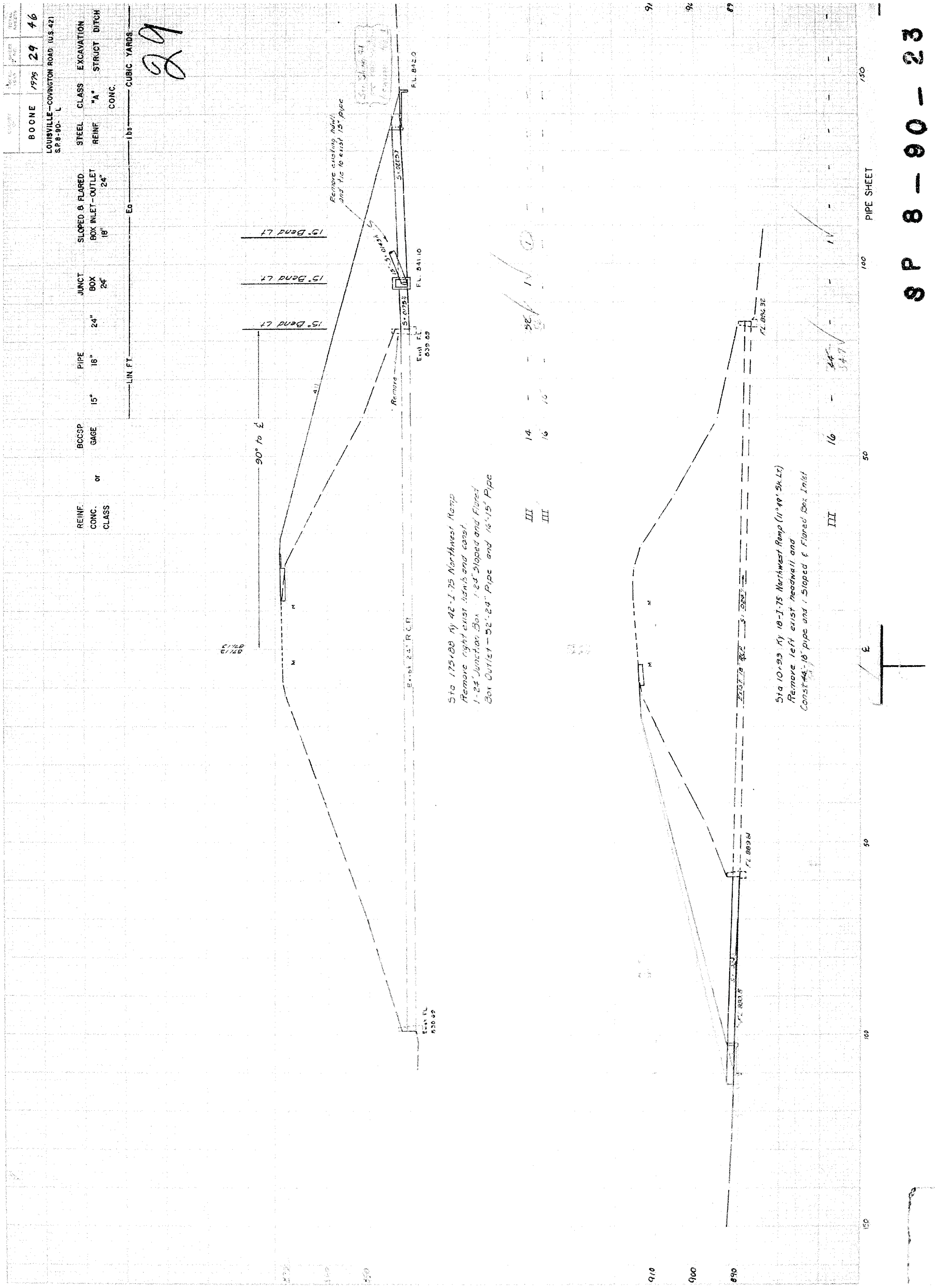


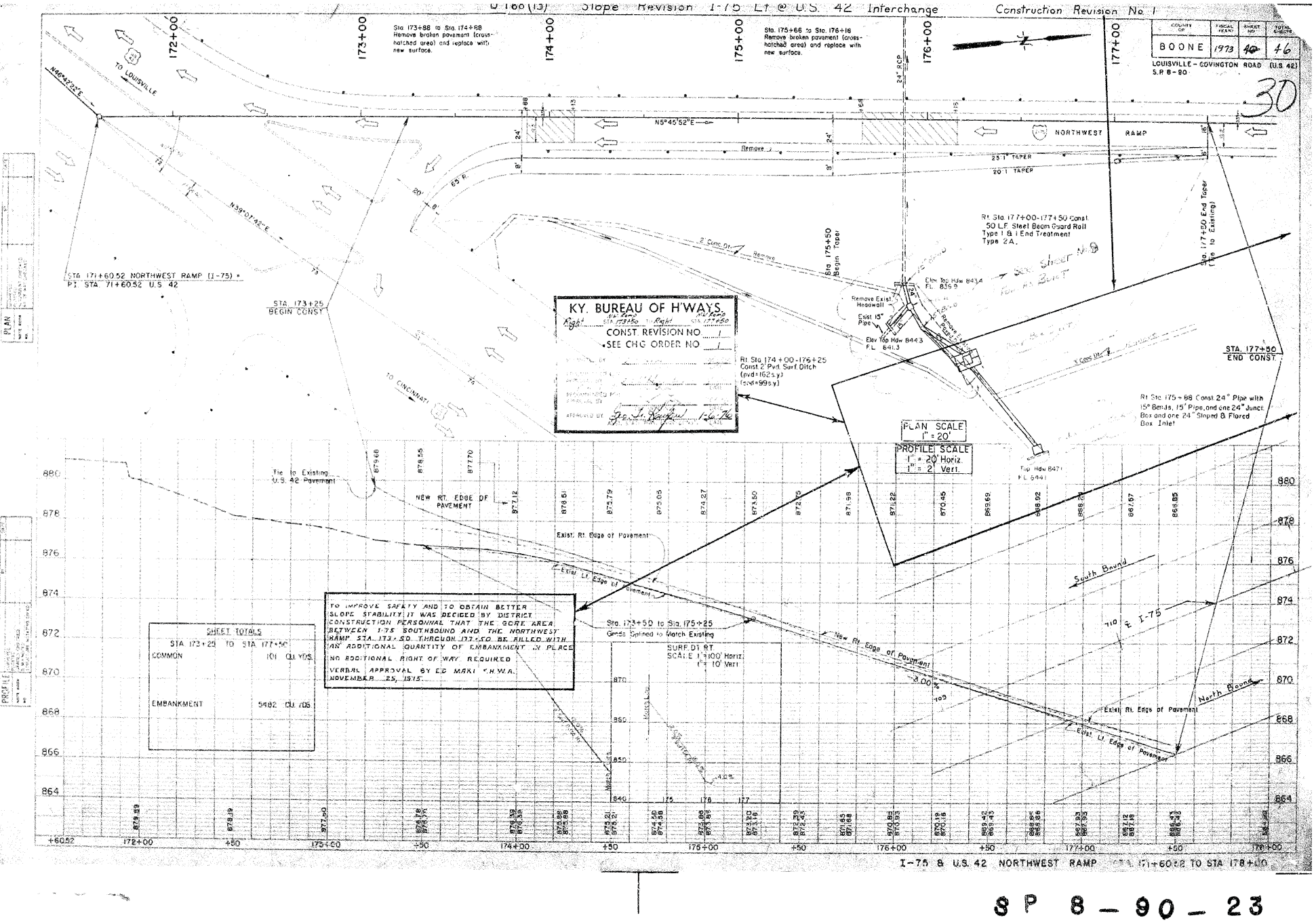
Sample No.	F
Location	9+00
Depth	10'-20.0'
Composition of Total Sample: Gravel (-3" + No. 10)	0
Coarse Sand (-No. 10 + No. 40)	1.4
Fine Sand (-No. 40 + No. 200)	3.1
Silt (-No. 200 + 0.005mm)	31.5
Clay (-0.005mm)	64.0
Natural Moisture (%)	28.2
Liquid Limit	65.0
Plastic Limit	23.0
Plasticity Index	42.0
Specific Gravity	2.76
Textural Classification	CLAY
AASHO Classification	A-7-6(32)
Unified Classification	CH

Sample No.	A
Location	176+00
Depth	1.0-6.0
Composition of Total Sample: Gravel (-3" + No. 10)	0
Coarse Sand (-No. 10 + No. 40)	1.9
Fine Sand (-No. 40 + No. 200)	10.6
Silt (-No. 200 + 0.005mm)	46.1
Clay (-0.005mm)	41.5
Natural Moisture (%)	23.0
Liquid Limit	42.0
Plastic Limit	18.0
Plasticity Index	24.0
Specific Gravity	2.70
Textural Classification	Clay
AASHO Classification	A-7-6(17)
Unified Classification	CL

SOILS AND SUBSURFACE INVESTIGATION BY: [illegible] DATE 7-29
DRAFTED BY: [illegible]

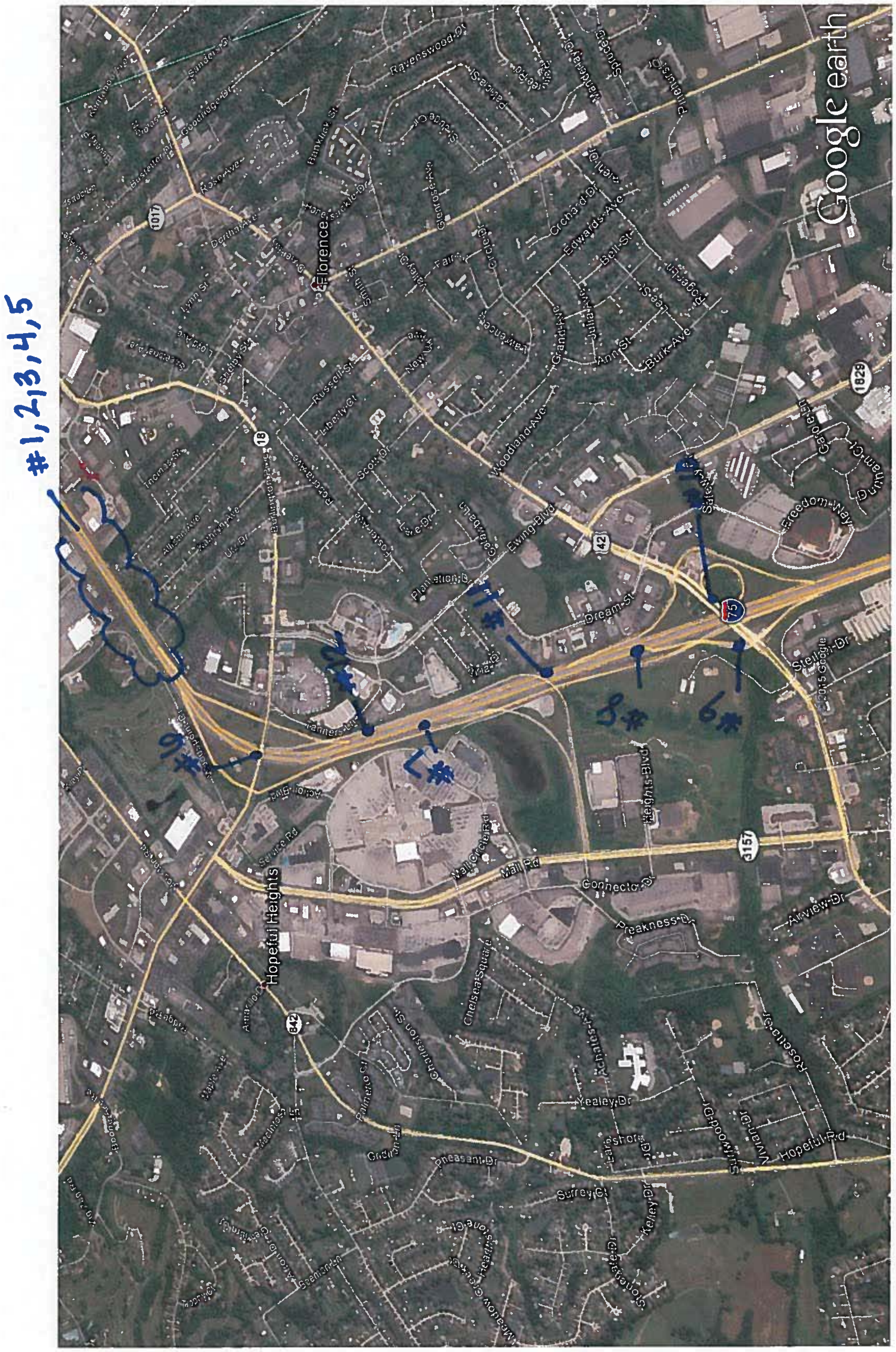
SP 8-90-2

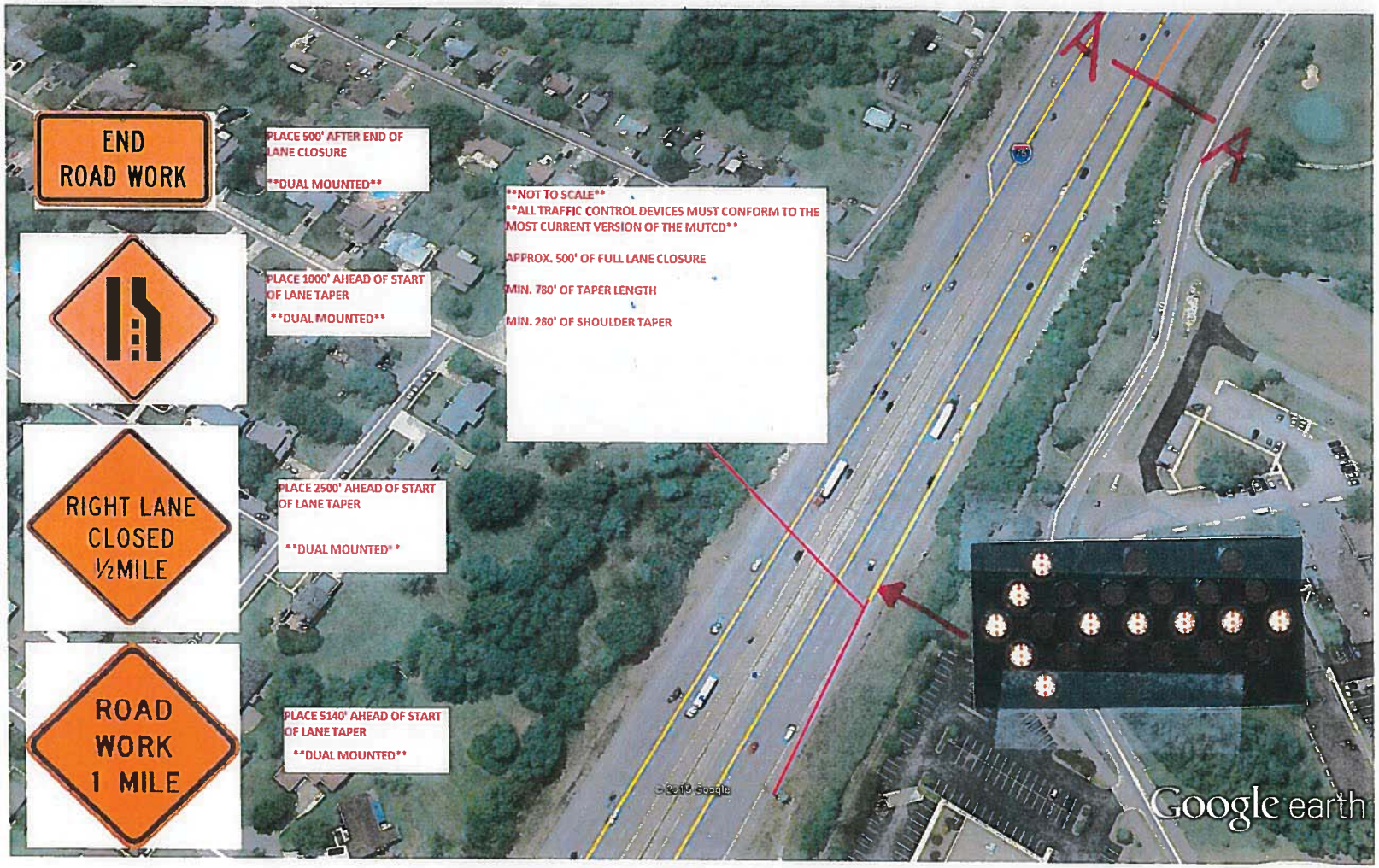

BOONE
LOUISVILLE—COVINGTON ROAD (U.S.42)
PIPE SHEET
S P 8 — 90 — 23



SP 8-90-23

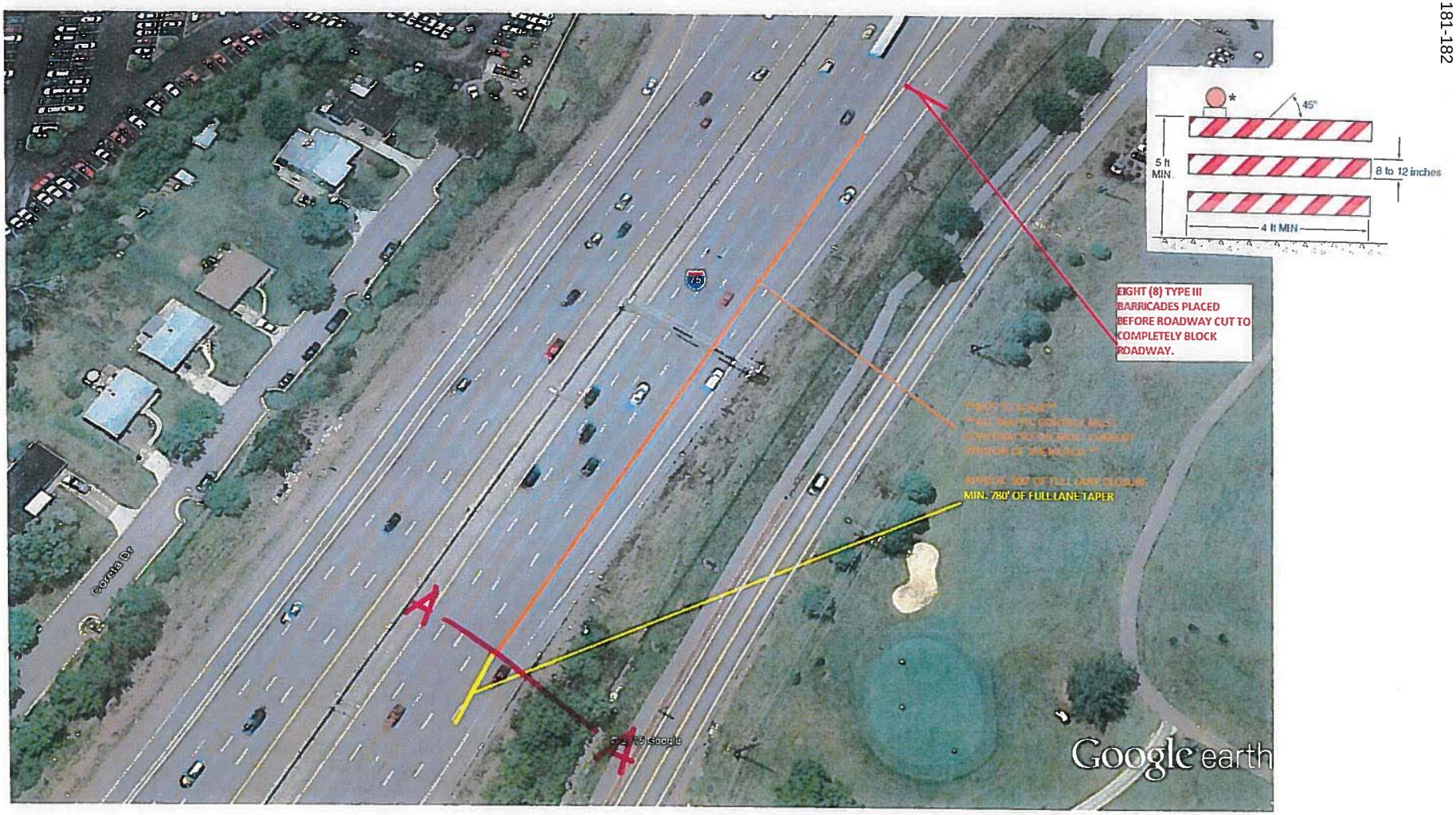
DETOUR SIGN PLAN


#1,2,3,4,5
Florence
Hopeful Heights
Google earth
Mall Rd
Hopeful Rd



SIGN AFFECTED RAMPS ACCORDING TO MUTCD.

#1



SIGN AFFECTED RAMPS ACCORDING TO MUTCD.

#2


NOT TO SCALE
ALL TRAFFIC CONTROL MUST CONFORM TO THE MOST RECENT VERSION OF MUTCD.
EXIT CLOSED
DETOUR
EXIT ONLY
RAMP
30
#3
© 2015 Google
Google earth


NOT TO SCALE
ALL TRAFFIC CONTROL MUST CONFORM TO THE MOST RECENT VERSION OF MUTCD.
EXIT CLOSED
DETOUR
Exit 160-A
Mall Road
3/4 MILE
18
Florence
Burlington
EXIT ONLY
I-75
Exit Street View
© 2015 Google
© 2015 Google
Google earth
#4


NOT TO SCALE
ALL TRAFFIC CONTROL MUST CONFORM TO THE MOST RECENT VERSION OF MUTCD.
EXIT CLOSED
DETOUR
#5
© 2015 Google
Google earth


I-75
Exit Street View
NOT TO SCALE
**ALL TRAFFIC CONTROL MUST CONFORM
TO THE MOST RECENT VERSION OF MUTCD.**
DETOUR
18
Florence
Union
Mall Road
#6
© 2015 Google
© 2015 Google
Google earth


I-75
Exit Street Name
NOT TO SCALE
**ALL TRAFFIC CONTROL MUST CONFORM
TO THE MOST RECENT VERSION OF MUTCD.**
DETOUR
18
42
Florence
Union
NEXT RIGHT
UPS
#1
© 2015 Google
© 2015 Google
Google earth


I-75
Exit Street View
NOT TO SCALE
**ALL TRAFFIC CONTROL MUST CONFORM
TO THE MOST RECENT VERSION OF MUTCD.**
DETOUR
18
71 75 South
Louisville
Lexington
Florence
Union
#8
© 2015 Google
© 2015 Google
Google earth

6 #

NOT TO SCALE
ALL TRAFFIC CONTROL MUST CONFORM TO THE MOST RECENT VERSION OF MUTCD.
DETOUR
18
DETOUR
18
DETOUR
18
DETOUR
18
Google earth

Ol #

NOT TO SCALE
**ALL TRAFFIC CONTROL MUST CONFORM
TO THE MOST RECENT VERSION OF MUTCD.**
DETOUR
18
NORTH
71
75
Cincinnati
NORTH
71
75


NOT TO SCALE
ALL TRAFFIC CONTROL MUST CONFORM TO THE MOST RECENT VERSION OF MUTCD.
DETOUR
I-75
Exit Street View
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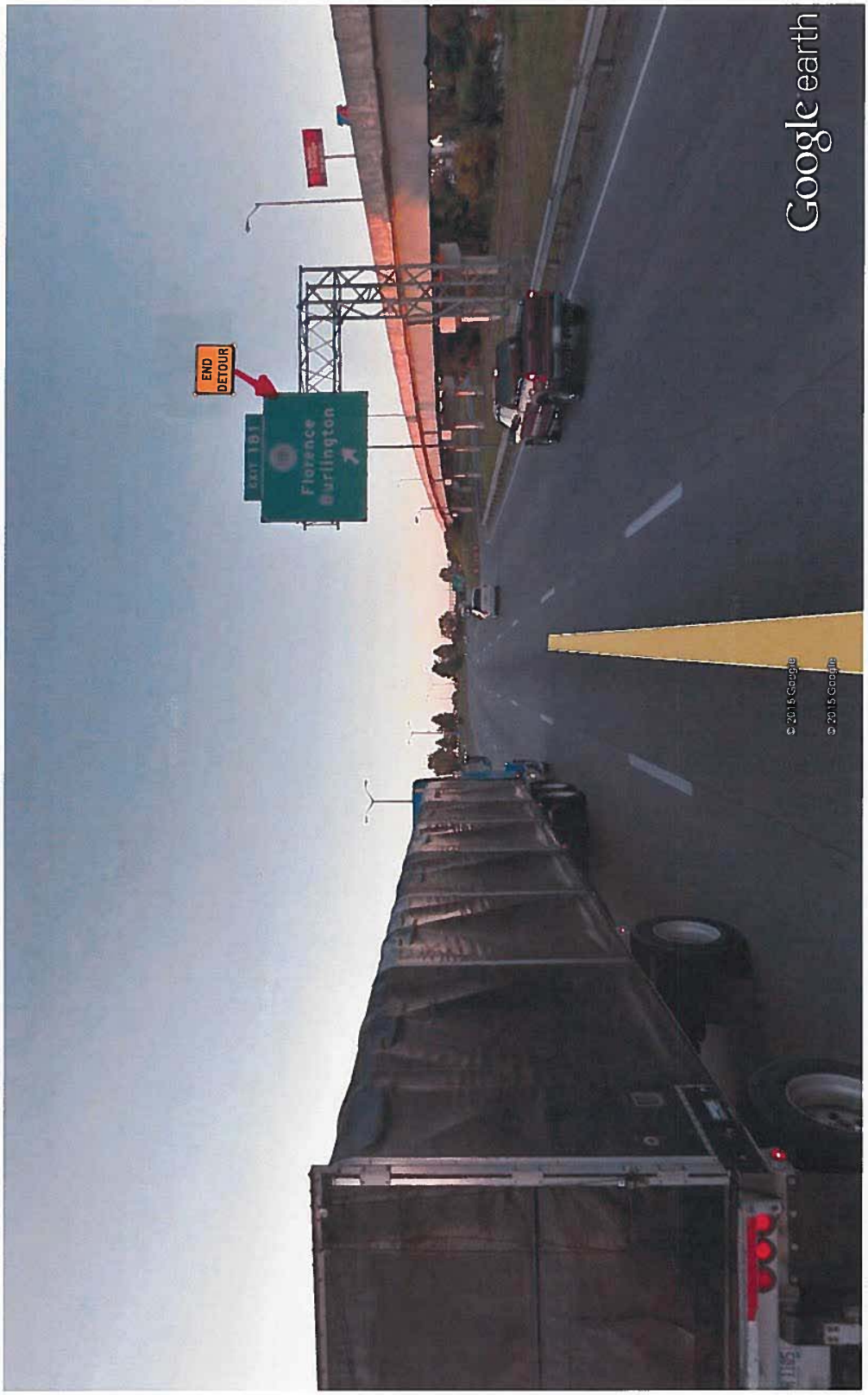
#12


END DETOUR
Exit 181
Florence
Burlington
Google earth
© 2015 Google
© 2015 Google

GUARDRAIL DELIVERY VERIFICATION SHEET

Contract Id: _____ **Contractor: _____**

Section Engineer: _____ **District & County: _____**

DESCRIPTION	UNIT	QTY LEAVING PROJECT	QTY RECEIVED@BB YARD
GUARDRAIL (Includes End treatments & crash cushions)	LF	_____	_____
STEEL POSTS	EACH	_____	_____
STEEL BLOCKS	EACH	_____	_____
WOOD OFFSET BLOCKS	EACH	_____	_____
BACK UP PLATES	EACH	_____	_____
CRASH CUSHION	EACH	_____	_____
NUTS, BOLTS, WASHERS	BAG/BCKT	_____	_____
DAMAGED RAIL TO MAINT. FACILITY	LF	_____	_____
DAMAGED POSTS TO MAINT. FACILITY	EACH	_____	_____

****Required Signatures before Leaving Project Site***

Printed Section Engineer's Representative_____ & Date_____

Signature Section Engineer's Representative_____& Date_____

Printed Contractor's Representative_____& Date_____

Signature Contractor's Representative_____& Date_____

Required Signatures after Arrival at Bailey Bridge Yard (All material on truck must be counted & the quantity received column completed before signatures)

Printed Bailey Bridge Yard Representative_____ & Date_____

Signature Bailey Bridge Yard Representative_____& Date_____

Printed Contractor's Representative_____& Date_____

Signature Contractor's Representative_____& Date_____

**Payment for the bid item remove guardrail will be based upon the quantities shown in the Bailey Bridge Yard received column. Payment will not be made for guardrail removal until the guardrail verification sheets are electronically submitted to the Section Engineer by the Bailey Bridge Yard Representative.

Completed Form Submitted to Section Engineer Date: _____ By: _____

SPECIAL NOTE FOR PRE-BID CONFERENCE
FD04 SPP 008 0075 181-182

The Department will conduct a Mandatory Pre-Bid Conference and Mandatory Field Review of the subject project on **Thursday, November 12, 2015, at 10:00 a.m. local time at:**

KYTC District 6 Office
421 Buttermilk Pike
Covington, KY 41017

Any company that is interested in bidding on the subject project or being part of a joint venture shall be represented at the conference by at least **one person of sufficient authority to bind the company**. No individual can represent more than one company. At the conference and, during the subsequent field review, a roster shall be taken of the representatives present. **Only companies represented at the conference and during the field review will be eligible to have their bids opened at the date of letting.**

During the field review, the company representatives and The Department of Highways officials will travel to the project site. The field review is not intended for bid estimation. **The Contractor shall be required to furnish approved High Visibility Apparel for all of their representatives present at the field review.**

The purpose of the conference and field review is to familiarize all prospective bidders with the contract requirements and the location and condition of all structures within the scope of the contract.

Department of Highways officials present at the conference and during the field review will answer questions concerning the projects.

PART II

SPECIFICATIONS AND STANDARD DRAWINGS

SPECIFICATIONS REFERENCE

Any reference in the plans or proposal to previous editions of the *Standard Specifications for Road and Bridge Construction* and *Standard Drawings* are superseded by *Standard Specifications for Road and Bridge Construction, Edition of 2012* and *Standard Drawings, Edition of 2012 with the 2012 Revision.*

Supplemental Specifications to the Standard Specifications for Road and Bridge Construction, 2012 Edition Effective with the July 31, 2015 Letting

Subsection:	102.15 Process Agent.
Revision:	Replace the 1st paragraph with the following: Every corporation doing business with the Department shall submit evidence of compliance with KRS Sections 14A.4-010, 271B.11-010, 271B.11-070, 271B.11-080, 271B.5-010 and 271B.16-220, and file with the Department the name and address of the process agent upon whom process may be served.
Subsection:	105.13 Claims Resolution Process.
Revision:	Delete all references to TC 63-34 and TC 63-44 from the subsection as these forms are no longer available through the forms library and are forms generated within the AASHTO SiteManager software.
Subsection:	108.03 Preconstruction Conference.
Revision:	Replace 8) Staking with the following: 8) Staking (designated by a Professional Engineer or Land Surveyor licensed in the Commonwealth of Kentucky.
Subsection:	109.07.02 Fuel.
Revision:	Revise item Crushed Aggregate Used for Embankment Stabilization to the following: Crushed Aggregate Used for Stabilization of Unsuitable Materials Used for Embankment Stabilization
	Delete the following item from the table. ~~Crushed Sandstone Base (Cement Treated)~~
Subsection:	110.02 Demobilization.
Revision:	Replace the first part of the first sentence of the second paragraph with the following: Perform all work and operations necessary to accomplish final clean-up as specified in the first paragraph of Subsection 105.12;
Subsection:	112.03.12 Project Traffic Coordinator (PTC).
Revision:	Replace the last paragraph of this subsection with the following: Ensure the designated PTC has sufficient skill and experience to properly perform the task assigned and has successfully completed the qualification courses.
Subsection:	112.04.18 Diversions (By-Pass Detours).
Revision:	Insert the following sentence after the 2nd sentence of this subsection. The Department will not measure temporary drainage structures for payment when the contract documents provide the required drainage opening that must be maintained with the diversion. The temporary drainage structures shall be incidental to the construction of the diversion. If the contract documents fail to provide the required drainage opening needed for the diversion, the cost of the temporary drainage structure will be handled as extra work in accordance with section 109.04.
Subsection:	201.03.01 Contractor Staking.
Revision:	Replace the first paragraph with the following: Perform all necessary surveying under the general supervision of a Professional Engineer or Land Surveyor licensed in the Commonwealth of Kentucky.

Supplemental Specifications to the Standard Specifications for Road and Bridge Construction, 2012 Edition Effective with the July 31, 2015 Letting

Subsection:	201.04.01 Contractor Staking.
Revision:	Replace the last sentence of the paragraph with the following: Complete the general layout of the project under the supervision of a Professional Engineer or Land Surveyor licensed in the Commonwealth of Kentucky.
Subsection:	206.04.01 Embankment-in-Place.
Revision:	Replace the fourth paragraph with the following: The Department will not measure **suitable** excavation included in the original plans that is disposed of for payment and will consider it incidental to Embankment-in-Place.
Subsection:	208.02.01 Cement.
Revision:	Replace paragraph with the following: Select Type I or Type II cement conforming to Section 801. Use the same type cement throughout the work.
Subsection:	208.03.06 Curing and Protection.
Revision:	Replace the fourth paragraph with the following: Do not allow traffic or equipment on the finished surface until the stabilized subgrade has cured for a total of 7-days with an ambient air temperature above 40 degrees Fahrenheit. A curing day consists of a continuous 24-hour period in which the ambient air temperature does not fall below 40 degrees Fahrenheit. Curing days will not be calculated consecutively, but must total seven (7) , 24-hour days with the ambient air temperature remaining at or above 40 degrees Fahrenheit before traffic or equipment will be allowed to traverse the stabilized subgrade. The Department may allow a shortened curing period when the Contractor requests. The Contractor shall give the Department at least 3 day notice of the request for a shortened curing period. The Department will require a minimum of 3 curing days after final compaction. The Contractor shall furnish cores to the treated depth of the roadbed at 500 feet intervals for each lane when a shortened curing time is requested. The Department will test cores using an unconfined compression test. Roadbed cores must achieve a minimum strength requirement of 80 psi.
Subsection:	208.03.06 Curing and Protection.
Revision:	Replace paragraph eight with the following: At no expense to the Department, repair any damage to the subgrade caused by freezing.
Subsection:	212.03.03 Permanent Seeding and Protection.
Part:	A) Seed Mixtures for Permanent Seeding.
Revision:	Revise **Seed Mix Type I** to the mixture shown below: 50% Kentucky 31 Tall Fescue (Festuca arundinacea) 35% Hard Fescue (Festuca (Festuca longifolia) 10% Ryegrass, Perennial (Lolium perenne) 5% White Dutch Clover (Trifolium repens)
Subsection:	212.03.03 Permanent Seeding and Protection.
Part:	A) Seed Mixtures for Permanent Seeding.
Number:	2)
Revision:	Replace the paragraph with the following: Permanent Seeding on Slopes Greater than 3:1 in Highway Districts 4, 5, 6, and 7. Apply seed mix Type II at a minimum application rate of 100 pounds per acre. If adjacent to a golf course replace the crown vetch with Kentucky 31 Tall Fescue.

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Subsection:	212.03.03 Permanent Seeding and Protection.
Part:	A) Seed Mixtures for Permanent Seeding.
Number:	3)
Revision:	Replace the paragraph with the following: Permanent Seeding on Slopes Greater than 3:1 in Highway Districts 1, 2, 3, 8, 9, 10, 11, and 12. Apply seed mix Type III at a minimum application rate of 100 pounds per acre. If adjacent to crop land or golf course, replace the Sericea Lespedeza with Kentucky 31 Fescue.
Subsection:	212.03.03 Permanent Seeding and Protection.
Part:	B) Procedures for Permanent Seeding.
Revision:	Delete the first sentence of the section.
Subsection:	212.03.03 Permanent Seeding and Protection.
Part:	B) Procedures for Permanent Seeding.
Revision:	Replace the second and third sentence of the section with the following: Prepare a seedbed and apply an initial fertilizer that contains a minimum of 100 pounds of nitrogen, 100 pounds of phosphate, and 100 pounds of potash per acre. Apply agricultural limestone to the seedbed when the Engineer determines it is needed. When required, place agricultural limestone at a rate of 3 tons per acre.
Subsection:	212.03.03 Permanent Seeding and Protection.
Part:	D) Top Dressing.
Revision:	Change the title of part to D) Fertilizer.
Subsection:	212.03.03 Permanent Seeding and Protection.
Part:	D) Fertilizer.
Revision:	Replace the first paragraph with the following: Apply fertilizer at the beginning of the seeding operation and after vegetation is established. Use fertilizer delivered to the project in bags or bulk. Apply initial fertilizer to all areas prior to the seeding or sodding operation at the application rate specified in 212.03.03 B). Apply 20-10-10 fertilizer to the areas after vegetation has been established at a rate of 11.5 pounds per 1,000 square feet. Obtain approval from the Engineer prior to the 2nd fertilizer application. Reapply fertilizer to any area that has a streaked appearance. The reapplication shall be at no additional cost to the Department. Re-establish any vegetation severely damaged or destroyed because of an excessive application of fertilizer at no cost to the Department.
Subsection:	212.03.03 Permanent Seeding and Protection.
Part:	D) Fertilizer.
Revision:	Delete the second paragraph.
Subsection:	212.04.04 Agricultural Limestone.
Revision:	Replace the entire section with the following: The Department will measure the quantity of agricultural limestone in tons.
Subsection:	212.04.05 Fertilizer.
Revision:	Replace the entire section with the following: The Department will measure fertilizer used in the seeding or sodding operations for payment. The Department will measure the quantity by tons.

Supplemental Specifications to the Standard Specifications for Road and Bridge Construction, 2012 Edition Effective with the July 31, 2015 Letting

Subsection:	212.05 PAYMENT.
Revision:	Delete the following item code:

Code	Pay Item	Pay Unit
05966	Topdressing Fertilizer	Ton

Subsection:	212.05 PAYMENT.
Revision:	Add the following pay items:

Code	Pay Item	Pay Unit
05963	Initial Fertilizer	Ton
05964	20-10-10 Fertilizer	Ton
05992	Agricultural Limestone	Ton

Subsection:	213.03.02 Progress Requirements.
Revision:	Replace the last sentence of the third paragraph with the following: Additionally, the Department will apply a penalty equal to the liquidated damages when all aspects of work are not coordinated in an acceptable manner within 7 calendar days after written notification.
Subsection:	213.03.05 Temporary Control Measures.
Part:	E) Temporary Seeding and Protection.
Revision:	Delete the second sentence of the first paragraph.
Subsection:	304.02.01 Physical Properties.
Table:	Required Geogrid Properties
Revision:	Replace all references to Test Method "GRI-GG2-87" with ASTM D 7737.
Subsection:	402.03.02 Contractor Quality Control and Department Acceptance.
Part:	B) Sampling.
Revision:	Replace the second sentence with the following: The Department will determine when to obtain the quality control samples using the random-number feature of the mix design submittal and approval spreadsheet. The Department will randomly determine when to obtain the verification samples required in Subsections 402.03.03 and 402.03.04 using the Asphalt Mixture Sample Random Tonnage Generator.
Subsection:	402.03.02 Contractor Quality Control and Department Acceptance.
Part:	D) Testing Responsibilities.
Number:	3) VMA.
Revision:	Add the following paragraph below Number 3) VMA: Retain the AV/VMA specimens and one additional corresponding G_{mm} sample for 5 working days for mixture verification testing by the Department. For Specialty Mixtures, retain a mixture sample for 5 working days for mixture verification testing by the Department. When the Department's test results do not verify that the Contractor's quality control test results are within the acceptable tolerances according to Subsection 402.03.03, retain the samples and specimens from the affected sublot(s) for the duration of the project.
Subsection:	402.03.02 Contractor Quality Control and Department Acceptance.
Part:	D) Testing Responsibilities.
Number:	4) Density.
Revision:	Replace the second sentence of the Option A paragraph with the following: Perform coring by the end of the following work day.

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Subsection: **Part:** **Number:** **Revision:**	402.03.02 Contractor Quality Control and Department Acceptance. D) Testing Responsibilities. 5) Gradation. Delete the second paragraph.
Subsection: **Part:** **Number:** **Revision:**	402.03.02 Contractor Quality Control and Department Acceptance. H) Unsatisfactory Work. 1) Based on Lab Data. Replace the second paragraph with the following: When the Engineer determines that safety concerns or other considerations prohibit an immediate shutdown, continue work and the Department will make an evaluation of acceptability according to Subsection 402.03.05.
Subsection: **Revision:**	402.03.03 Verification. Replace the first paragraph with the following: **402.03.03 Mixture Verification.** For volumetric properties, the Department will perform a minimum of one verification test for AC, AV, and VMA according to the corresponding procedures as given in Subsection 402.03.02. The Department will randomly determine when to obtain the verification sample using the Asphalt Mixture Sample Random Tonnage Generator. For specialty mixtures, the Department will perform one AC and one gradation determination per lot according to the corresponding procedures as given in Subsection 402.03.02. However, Department personnel will not perform AC determinations according to KM 64-405. The Contractor will obtain a quality control sample at the same time the Department obtains the mixture verification sample and perform testing according to the procedures given in Subsection 402.03.02. If the Contractor's quality control sample is verified by the Department's test results within the tolerances provided below, the Contractor's sample will serve as the quality control sample for the affected sublot. The Department may perform the mixture verification test on the Contractor's equipment or on the Department's equipment.
Subsection: **Part:** **Revision:**	402.03.03 Verification. A) Evaluation of Sublot(s) Verified by Department. Replace the third sentence of the second paragraph with the following: When the paired *t* -test indicates that the Contractor's data and Department's data are possibly not from the same population, the Department will investigate the cause for the difference according to Subsection 402.03.05 and implement corrective measures as the Engineer deems appropriate.
Subsection: **Part:** **Revision:**	402.03.03 Verification. B) Evaluation of Sublots Not Verified by Department. Replace the third sentence of the first paragraph with the following: When differences between test results are not within the tolerances listed below, the Department will resolve the discrepancy according to Subsection 402.03.05.

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Subsection: **Part:** **Revision:**	402.03.03 Verification. B) Evaluation of Sublots Not Verified by Department. Replace the third sentence of the second paragraph with the following: When the *F* -test or *t* -test indicates that the Contractor's data and Department's data are possibly not from the same population, the Department will investigate the cause for the difference according to Subsection 402.03.05 and implement corrective measures as the Engineer deems appropriate.
Subsection: **Part:** **Revision:**	402.03.03 Verification. C) Test Data Patterns. Replace the second sentence with the following: When patterns indicate substantial differences between the verified and non-verified sublots, the Department will perform further comparative testing according to subsection 402.03.05.
Subsection: **Revision:**	402.03 CONSTRUCTION. Add the following subsection: **402.03.04 Testing Equipment and Technician Verification.** For mixtures with a minimum quantity of 20,000 tons and for every 20,000 tons thereafter, the Department will obtain an additional verification sample at random using the Asphalt Mixture Sample Random Tonnage Generator in order to verify the integrity of the Contractor's and Department's laboratory testing equipment and technicians. The Department will obtain a mixture sample of at least 150 lb at the asphalt mixing plant according to KM 64-425 and split it according to AASHTO R 47. The Department will retain one split portion of the sample and provide the other portion to the Contractor. At a later time convenient to both parties, the Department and Contractor will simultaneously reheat the sample to the specified compaction temperature and test the mixture for AV and VMA using separate laboratory equipment according to the corresponding procedures given in Subsection 402.03.02. The Department will evaluate the differences in test results between the two laboratories. When the difference between the results for AV or VMA is not within ± 2.0 percent, the Department will investigate and resolve the discrepancy according to Subsection 402.03.05.
Subsection: **Revision:**	402.03.04 Dispute Resolution. Change the subsection number to 402.03.05.
Subsection: **Part:** **Table:** **Revision:**	402.05 PAYMENT. Lot Pay Adjustment Schedule Compaction Option A Base and Binder Mixtures AC Replace the Deviation from JMF(%) that corresponds to a Pay Value of 0.95 to ±0.6.
Subsection: **Revision:**	403.02.10 Material Transfer Vehicle (MTV). Replace the first sentence with the following: In addition to the equipment specified above, provide a MTV with the following minimum characteristics:
Subsection: **Revision:**	412.02.09 Material Transfer Vehicle (MTV). Replace the paragraph with the following: Provide and utilize a MTV with the minimum characteristics outlined in section 403.02.10.

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Subsection:	412.03.07 Placement and Compaction.
Revision:	Replace the first paragraph with the following: Use a MTV when placing SMA mixture in the driving lanes. The MTV is not required on ramps and/or shoulders unless specified in the contract. When the Engineer determines the use of the MTV is not practical for a portion of the project, the Engineer may waive its requirement for that portion of pavement by a letter documenting the waiver.
Subsection:	412.04 MEASUREMENT.
Revision:	Add the following subsection: 412.04.03. Material Transfer Vehicle (MTV). The Department will not measure the MTV for payment and will consider its use incidental to the asphalt mixture.
Subsection:	501.03.05 Weather Limitations and Protection.
Revision:	Replace the reference to Subsection 501.03.19 in Paragraph 5, with Subsection 501.03.20.
Subsection:	501.03.19 Surface Tolerances and Testing Surface.
Part:	B) Ride Quality.
Revision:	Add the following to the end of the first paragraph: The Department will specify if the ride quality requirements are Category A or Category B when ride quality is specified in the Contract. Category B ride quality requirements shall apply when the Department fails to classify which ride quality requirement will apply to the Contract.
Subsection:	603.03.06 Cofferdams.
Revision:	Replace the seventh sentence of paragraph one with the following: Submit drawings that are stamped by a Professional Engineer licensed in the Commonwealth of Kentucky.
Subsection:	605.03.04 Tack Welding.
Revision:	Insert the subsection and the following: 605.03.04 Tack Welding. The Department does not allow tack welding.
Subsection:	606.03.17 Special Requirements for Latex Concrete Overlays.
Part:	A) Existing Bridges and New Structures.
Number:	1) Prewetting and Grout-Bond Coat.
Revision:	Add the following sentence to the last paragraph: Do not apply a grout-bond coat on bridge decks prepared by hydrodemolition.
Subsection:	609.03 Construction.
Revision:	Replace Subsection 609.03.01 with the following: 609.03.01 A) Swinging the Spans. Before placing concrete slabs on steel spans or precast concrete release the temporary erection supports under the bridge and swing the span free on its supports. 609.03.01 B) Lift Loops. Cut all lift loops flush with the top of the precast beam once the beam is placed in the final location and prior to placing steel reinforcement. At locations where lift loops are cut, paint the top of the beam with galvanized or epoxy paint.

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Subsection: **Revision:**	611.03.02 Precast Unit Construction. Replace the first sentence of the subsection with the following: Construct units according to ASTM C1577, **replacing Table 1 (Design Requirements for Precast Concrete Box Sections Under Earth, Dead and HL-93 Live Load Conditions) with KY Table 1 (Precast Culvert KYHL-93 Design Table)**, and Section 605 with the following exceptions and additions:
Subsection: **Number:** **Revision:**	613.03.01 Design. 2) Replace "AASHTO Standard Specifications for Highway Bridges" with "AASHTO LRFD Bridge Design Specifications"
Subsection: **Revision:**	615.06.02 Add the following sentence to the end of the subsection. The ends of units shall be normal to walls and centerline except exposed edges shall be beveled ¾ inch.
Subsection: **Revision:**	615.06.03 Placement of Reinforcement in Precast 3-Sided Units. Replace the reference of 6.6 in the section to 615.06.06.
Subsection: **Revision:**	615.06.04 Placement of Reinforcement for Precast Endwalls. Replace the reference of 6.7 in the section to 615.06.07.
Subsection: **Revision:**	615.06.06 Laps, Welds, and Spacing for Precast 3-Sided Units. Replace the subsection with the following: Tension splices in the circumferential reinforcement shall be made by lapping. Laps may not be tack welded together for assembly purposes. For smooth welded wire fabric, the overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.5.2 and AASHTO 2012 Bridge Design Guide Section 5.11.6.3. For deformed welded wire fabric, the overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.5.1 and AASHTO 2012 Bridge Design Guide Section 5.11.6.2. The overlap of welded wire fabric shall be measured between the outer most longitudinal wires of each fabric sheet. For deformed billet-steel bars, the overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.1. For splices other than tension splices, the overlap shall be a minimum of 12" for welded wire fabric or deformed billet-steel bars. The spacing center to center of the circumferential wires in a wire fabric sheet shall be no less than 2 inches and no more than 4 inches. The spacing center to center of the longitudinal wires shall not be more than 8 inches. The spacing center to center of the longitudinal distribution steel for either line of reinforcing in the top slab shall be not more than 16 inches.
Subsection: **Revision:**	615.06.07 Laps, Welds, and Spacing for Precast Endwalls. Replace the subsection with the following: Splices in the reinforcement shall be made by lapping. Laps may not be tack welded together for assembly purposes. For smooth welded wire fabric, the overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.5.2 and AASHTO 2012 Bridge Design Guide Section 5.11.6.3. For deformed welded wire fabric, the overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.5.1 and AASHTO 2012 Bridge Design Guide Section 5.11.6.2. For deformed billet-steel bars, the overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.1. The spacing center-to-center of the wire fabric sheet shall not be less than 2 inches or more than 8 inches.

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Subsection:	615.08.01 Type of Test Specimen.
Revision:	Replace the subsection with the following: Start-up slump, air content, unit weight, and temperature tests will be performed each day on the first batch of concrete. Acceptable start-up results are required for production of the first unit. After the first unit has been established, random acceptance testing is performed daily for each 50 yd^3 (or fraction thereof). In addition to the slump, air content, unit weight, and temperature tests, a minimum of one set of cylinders shall be required each time plastic property testing is performed.
Subsection:	615.08.02 Compression Testing.
Revision:	Delete the second sentence.
Subsection:	615.08.04 Acceptability of Core Tests.
Revision:	Delete the entire subsection.
Subsection:	615.12 Inspection.
Revision:	Add the following sentences to the end of the subsection: Units will arrive at jobsite with the "Kentucky Oval" stamped on the unit which is an indication of acceptable inspection at the production facility. Units shall be inspected upon arrival for any evidence of damage resulting from transport to the jobsite.
Subsection:	701.04.16 Deduction for Pipe Deflection.
Revision:	Insert the following at the end of the paragraph: The section length is determined by the length of the pipe between joints where the failure occurred.
Subsection:	716.02.02 Paint.
Revision:	Replace sentence with the following: Conform to Section 821.
Subsection:	716.03 CONSTRUCTION.
Revision:	Replace bullet 5) with the following: 5) AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims,
Subsection:	716.03.02 Lighting Standard Installation.
Revision:	Replace the second sentence with the following: Regardless of the station and offset noted, locate all poles/bases behind the guardrail a minimum of four feet from the front face of the guardrail to the front face of the pole base.
Subsection:	716.03.02 Lighting Standard Installation.
Part:	A) Conventional Installation.
Revision:	Replace the third sentence with the following: Orient the transformer base so the door is positioned on the side away from on-coming traffic.
Subsection:	716.03.02 Lighting Standard Installation.
Part:	A) Conventional Installation.
Number:	1) Breakaway Installation and Requirements.
Revision:	Replace the first sentence with the following: For breakaway supports, conform to Section 12 of the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims.
Subsection:	716.03.02 Lighting Standard Installation.
Part:	B) High Mast Installation
Revision:	Replace the first sentence with the following: Install each high mast pole as noted on plans.

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Subsection:	716.03.02 Lighting Standard Installation.
Part:	B) High Mast Installation
Number:	2) Concrete Base Installation
Revision:	Modification of Chart and succeeding paragraphs within this section:

Drilled Shaft Depth Data							
Level Ground		3:1 Ground Slope		2:1 Ground Slope		1.5:1 Ground Slope (2)	
Soil	Rock	Soil	Rock	Soil	Rock	Soil	Rock
17 ft	7 ft	19 ft	7 ft	20 ft	7 ft	(1)	7 ft

Steel Requirements			
Vertical Bars		Ties or Spiral	
Size	Total	Size	Spacing or Pitch
#10	16	#4	12 inch

(1): Shaft length is 22' for cohesive soil only. For cohesionless soil, contact geotechnical branch for design.
(2): Do not construct high mast drilled shafts on ground slopes steeper than 1.5:1 without the approval of the Division of Traffic.

If rock is encountered during drilling operations and confirmed by the engineer to be of sound quality, the shaft is only required to be further advanced into the rock by the length of rock socket shown in the table. The total length of the shaft need not be longer than that of soil alone. Both longitudinal rebar length and number of ties or spiral length shall be adjusted accordingly.

If a shorter depth is desired for the drilled shaft, the contractor shall provide, for the state's review and approval, a detailed column design with individual site specific soil and rock analysis performed and approved by a Professional Engineer licensed in the Commonwealth of Kentucky.

Spiral reinforcement may be substituted for ties. If spiral reinforcement is used, one and one-half closed coils shall be provided at the ends of each spiral unit. Subsurface conditions consisting of very soft clay or very loose saturated sand could result in soil parameters weaker than those assumed. Engineer shall consult with the geotechnical branch if such conditions are encountered.

The bottom of the drilled hole shall be firm and thoroughly cleaned so no loose or compressible materials are present at the time of the concrete placement. If the drilled hole contains standing water, the concrete shall be placed using a tremie to displace water. Continuous concrete flow will be required to insure full displacement of any water.

The reinforcement and anchor bolts shall be adequately supported in the proper positions so no movement occurs during concrete placement. Welding of anchor bolts to the reinforcing cage is unacceptable, templates shall be used. Exposed portions of the foundation shall be formed to create a smooth finished surface. All forming shall be removed upon completion of foundation construction.

Subsection:	716.03.03 Trenching.
Part:	A) Trenching of Conduit for Highmast Ducted Cables.
Revision:	Add the following after the first sentence: If depths greater than 24 inches are necessary, obtain the Engineer's approval and maintain the required conduit depths coming into the junction boxes. No payment for additional junction boxes for greater depths will be allowed.

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Subsection:	716.03.03 Trenching.
Part:	B) Trenching of Conduit for Non-Highmast Cables.
Revision:	Add the following after the second sentence: If depths greater than 24 inches are necessary for either situation listed previously, obtain the Engineer's approval and maintain the required conduit depths coming into the junction boxes. No payment for additional junction boxes for greater depths will be allowed.
Subsection:	716.03.10 Junction Boxes.
Revision:	Replace subsection title with the following: Electrical Junction Box.
Subsection:	716.04.07 Pole with Secondary Control Equipment.
Revision:	Replace the paragraph with the following: The Department will measure the quantity as each individual unit furnished and installed. The Department will not measure mounting the cabinet to the pole, backfilling, restoration, any necessary hardware to anchor pole, or electrical inspection fees, and will consider them incidental to this item of work. The Department will also not measure furnishing and installing electrical service conductors, specified conduits, meter base, transformer, service panel, fused cutout, fuses, lighting arrestors, photoelectrical control, circuit breaker, contactor, manual switch, ground rods, and ground wires and will consider them incidental to this item of work.
Subsection:	716.04.08 Lighting Control Equipment.
Revision:	Replace the paragraph with the following: The Department will measure the quantity as each individual unit furnished and installed. The Department will not measure constructing the concrete base, excavation, backfilling, restoration, any necessary anchors, or electrical inspection fees, and will consider them incidental to this item of work. The Department will also not measure furnishing and installing electrical service conductors, specified conduits, meter base, transformer, service panel, fused cutout, fuses, lighting arrestors, photoelectrical control, circuit breakers, contactor, manual switch, ground rods, and ground wires and will consider them incidental to this item of work.
Subsection:	716.04.09 Luminaire.
Revision:	Replace the first sentence with the following: The Department will measure the quantity as each individual unit furnished and installed.
Subsection:	716.04.10 Fused Connector Kits.
Revision:	Replace the first sentence with the following: The Department will measure the quantity as each individual unit furnished and installed.
Subsection:	716.04.13 Junction Box.
Revision:	Replace the subsection title with the following: Electrical Junction Box Type Various.
Subsection:	716.04.13 Junction Box.
Part:	A) Junction Electrical.
Revision:	Rename A) Junction Electrical to the following: A) Electrical Junction Box.
Subsection:	716.04.14 Trenching and Backfilling.
Revision:	Replace the second sentence with the following: The Department will not measure excavation, backfilling, underground utility warning tape (if required), the restoration of disturbed areas to original condition, and will consider them incidental to this item of work.

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Subsection: 716.04.18 Remove Lighting.
Revision: Replace the paragraph with the following:
The Department will measure the quantity as a lump sum for the removal of lighting equipment. The Department will not measure the disposal of all equipment and materials off the project by the contractor. The Department also will not measure the transportation of the materials and will consider them incidental to this item of work.

Subsection: 716.04.20 Bore and Jack Conduit.
Revision: Replace the paragraph with the following: The Department will measure the quantity in linear feet. This item shall include all work necessary for boring and installing conduit under an existing roadway. Construction methods shall be in accordance with Sections 706.03.02, paragraphs 1, 2, and 4.

Subsection: 716.05 PAYMENT.
Revision: Replace items 04810-04811, 20391NS835 and, 20392NS835 under Code, Pay Item, and Pay Unit with the following:

Code	Pay Item	Pay Unit
04810	Electrical Junction Box	Each
04811	Electrical Junction Box Type B	Each
20391NS835	Electrical Junction Box Type A	Each
20392NS835	Electrical Junction Box Type C	Each

Subsection: 723.02.02 Paint.
Revision: Replace sentence with the following: Conform to Section 821.

Subsection: 723.03 CONSTRUCTION.
Revision: Replace bullet 5) with the following: 5) AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims,

Subsection: 723.03.02 Poles and Bases Installation.
Revision: Replace the first sentence with the following:
Regardless of the station and offset noted, locate all poles/bases behind the guardrail a minimum of four feet from the front face of the guardrail to the front face of the pole base.

Subsection: 723.03.02 Poles and Bases Installation.
Part: A) Steel Strain and Mastarm Poles Installation
Revision: Replace the second paragraph with the following: For concrete base installation, see Section 716.03.02, B), 2), Paragraphs 2-7. Drilled shaft depth shall be based on the soil conditions encountered during drilling and slope condition at the site. Refer to the design chart below:

Subsection: 723.03.02 Poles and Bases Installation.
Part: B) Pedestal or Pedestal Post Installation.
Revision: Replace the fourth sentence of the paragraph with the following: For breakaway supports, conform to Section 12 of the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims.

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Subsection: **Part:** **Revision:**	723.03.03 Trenching. A) Under Roadway. Add the following after the second sentence: If depths greater than 24 inches are necessary, obtain the Engineer's approval and maintain ether required conduit depths coming into the junction boxes. No payment for additional junction boxes for greater depths will be allowed.
Subsection: **Revision:**	723.03.11 Wiring Installation. Add the following sentence between the fifth and sixth sentences: Provide an extra two feet of loop wire and lead-in past the installed conduit in poles, pedestals, and junction boxes.
Subsection: **Revision:**	723.03.12 Loop Installation. Replace the fourth sentence of the 2nd paragraph with the following: Provide an extra two feet of loop wire and lead-in past the installed conduit in poles, pedestals, and junction boxes.
Subsection: **Revision:**	723.04.02 Junction Box. Replace subsection title with the following: Electrical Junction Box Type Various.
Subsection: **Revision:**	723.04.03 Trenching and Backfilling. Replace the second sentence with the following: The Department will not measure excavation, backfilling, underground utility warning tape (if required), the restoration of disturbed areas to original condition, and will consider them incidental to this item of work.
Subsection: **Revision:**	723.04.10 Signal Pedestal. Replace the second sentence with the following: The Department will not measure excavation, concrete, reinforcing steel, specified conduits, fittings, ground rod, ground wire, backfilling, restoring disturbed areas, or other necessary hardware and will consider them incidental to this item of work.
Subsection: **Revision:**	723.04.15 Loop Saw Slot and Fill. Replace the second sentence with the following: The Department will not measure sawing, cleaning and filling induction loop saw slot, loop sealant, backer rod, and grout and will consider them incidental to this item of work.
Subsection: **Revision:**	723.04.16 Pedestrian Detector. Replace the paragraph with the following: The Department will measure the quantity as each individual unit furnished, installed and connected to pole/pedestal. The Department will not measure installing R10-3e (with arrow) sign, furnishing and installing mounting hardware for sign and will consider them incidental to this item of work.
Subsection: **Revision:**	723.04.18 Signal Controller- Type 170. Replace the second sentence with the following: The Department will not measure constructing the concrete base or mounting the cabinet to the pole, connecting the signal and detectors, excavation, backfilling, restoration, any necessary pole mounting hardware, electric service, or electrical inspection fees and will consider them incidental to this item of work. The Department will also not measure furnishing and connecting the induction of loop amplifiers, pedestrian isolators, load switches, model 400 modem card; furnishing and installing electrical service conductors, specified conduits, anchors, meter base, fused cutout, fuses, ground rods, ground wires and will consider them incidental to this item of work.

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Subsection:	723.04.20 Install Signal Controller - Type 170.
Revision:	Replace the paragraph with the following: The Department will measure the quantity as each individual unit installed. The Department will not measure constructing the concrete base or mounting the cabinet to the pole, connecting the signal and detectors, and excavation, backfilling, restoration, any necessary pole mounting hardware, electric service, or electrical inspection fees and will consider them incidental to this item of work. The Department will also not measure connecting the induction loop amplifiers, pedestrian, isolators, load switches, model 400 modem card; furnishing and installing electrical service conductors, specified conduits, anchors, meter base, fused cutout, fuses, ground rods, ground wires and will consider them incidental to this item of work.
Subsection:	723.04.22 Remove Signal Equipment.
Revision:	Replace the paragraph with the following: The Department will measure the quantity as a lump sum removal of signal equipment. The Department will not measure the return of control equipment and signal heads to the Department of Highways as directed by the District Traffic Engineer. The Department also will not measure the transportation of materials of the disposal of all other equipment and materials off the project by the contractor and will consider them incidental to this item of work.
Subsection:	723.04.28 Install Pedestrian Detector Audible.
Revision:	Replace the second sentence with the following: The Department will not measure installing sign R10-3e (with arrow) and will consider it incidental to this item of work.
Subsection:	723.04.29 Audible Pedestrian Detector.
Revision:	Replace the second sentence with the following: The Department will not measure furnishing and installing the sign R10-3e (with arrow) and will consider it incidental to this item of work.
Subsection:	723.04.30 Bore and Jack Conduit.
Revision:	Replace the paragraph with the following: The Department will measure the quantity in linear feet. This item shall include all work necessary for boring and installing conduit under an existing roadway. Construction methods shall be in accordance with Sections 706.03.02, paragraphs 1, 2, and 4.
Subsection:	723.04.31 Install Pedestrian Detector.
Revision:	Replace the paragraph with the following: The Department will measure the quantity as each individual unit installed and connected to pole/pedestal. The Department will not measure installing sign R 10-3e (with arrow) and will consider it incidental to this item of work.
Subsection:	723.04.32 Install Mast Arm Pole.
Revision:	Replace the second sentence with the following: The Department will not measure arms, signal mounting brackets, anchor bolts, or any other necessary hardware and will consider them incidental to this item of work.
Subsection:	723.04.33 Pedestal Post.
Revision:	Replace the second sentence with the following: The Department will not measure excavation, concrete, reinforcing steel, anchor bolts, conduit, fittings, ground rod, ground wire, backfilling, restoration, or any other necessary hardware and will consider them incidental to this item of work.

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Subsection: 723.04.36 Traffic Signal Pole Base.
Revision: Replace the second sentence with the following: The Department will not measure excavation, reinforcing steel, anchor bolts, specified conduits, ground rods, ground wires, backfilling, or restoration and will consider them incidental to this item of work.

Subsection: 723.04.37 Install Signal Pedestal.
Revision: Replace the second sentence with the following: The Department will not measure excavation, concrete, reinforcing steel, anchor bolts, specified conduits, fittings, ground rod, ground wire, backfilling, restoration, or any other necessary hardware and will consider them incidental to this item of work.

Subsection: 723.04.38 Install Pedestal Post.
Revision: Replace the second sentence with the following: The Department will not measure excavation, concrete, reinforcing steel, anchor bolts, specified conduits, fittings, ground rod, ground wire, backfilling, restoration, or any other necessary hardware and will consider them incidental to this item of work.

Subsection: 723.05 PAYMENT.
Revision: Replace items 04810-04811, 20391NS835 and, 20392NS835 under Code, Pay Item, and Pay Unit with the following:

Code	Pay Item	Pay Unit
04810	Electrical Junction Box	Each
04811	Electrical Junction Box Type B	Each
20391NS835	Electrical Junction Box Type A	Each
20392NS835	Electrical Junction Box Type C	Each

Subsection: 804.01.02 Crushed Sand.
Revision: Delete last sentence of the section.

Subsection: 804.01.06 Slag.
Revision: Add subsection and following sentence.
Provide blast furnace slag sand where permitted. The Department will allow steel slag sand only in asphalt surface applications.

Subsection: 804.04 Asphalt Mixtures.
Revision: Replace the subsection with the following:
Provide natural, crushed, conglomerate, or blast furnace slag sand, with the addition of filler as necessary, to meet gradation requirements. The Department will allow any combination of natural, crushed, conglomerate or blast furnace slag sand when the combination is achieved using cold feeds at the plant. The Engineer may allow other fine aggregates.

Subsection: 806.03.01 General Requirements.
Revision: Replace the second sentence of the paragraph with the following:
Additionally, the material must have a minimum solubility of 99.0 percent when tested according to AASHTO T 44 and PG 76-22 must exhibit a minimum recovery of 60 percent, with a J_{NR} (nonrecoverable creep compliance) between 0.1 and 0.5, when tested according to AASHTO TP 70.

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Subsection: **Table:** **Revision:**	806.03.01 General Requirements. PG Binder Requirements and Price Adjustment Schedule Replace the Elastic Recovery, % [3] (AASHTO T301) and all corresponding values in the table with the following: Test | Specification | 100% Pay | 90% Pay | 80% Pay | 70% Pay | 50%Pay[1] MSCR recovery, % [3] (AASHTO TP 70) | 60 Min. | ≥58 | 56 | 55 | 54 | <53
Subsection: **Table:** **Superscript:** **Revision:**	806.03.01 General Requirements. PG Binder Requirements and Price Adjustment Schedule (3) Replace [3] with the following: Perform testing at 64°C.
Subsection: **Revision:**	813.04 Gray Iron Castings. Replace the reference to "AASHTO M105" with "ASTM A48".
Subsection: **Number:** **Revision:**	813.09.02 High Strength Steel Bolts, Nuts, and Washers. A) Bolts. Delete first paragraph and "Hardness Number" Table. Replace with the following: A) Bolts. Conform to ASTM A325 (AASHTO M164) or ASTM A490 (AASHTO 253) as applicable.
Subsection: **Revision:**	814.04.02 Timber Guardrail Posts. Third paragraph, replace the reference to "AWPA C14" with "AWPA U1, Section B, Paragraph 4.1".
Subsection: **Revision:**	814.04.02 Timber Guardrail Posts. Replace the first sentence of the fourth paragraph with the following: Use any of the species of wood for round or square posts covered under AWPA U1.
Subsection: **Revision:**	814.04.02 Timber Guardrail Posts. Fourth paragraph, replace the reference to "AWPA C2" with "AWPA U1, Section B, Paragraph 4.1".
Subsection: **Revision:**	814.04.02 Timber Guardrail Posts. Delete the second sentence of the fourth paragraph.
Subsection: **Revision:**	814.05.02 Composite Plastic. 1) Add the following to the beginning of the first paragraph: Select composite offset blocks conforming to this section and assure blocks are from a manufacturer included on the Department's List of Approved Materials. 2) Delete the last paragraph of the subsection.
Subsection: **Revision:**	816.07.02 Wood Posts and Braces. First paragraph, replace the reference to "AWPA C5" with "AWPA U1, Section B, Paragraph 4.1".
Subsection: **Revision:**	816.07.02 Wood Posts and Braces. Delete the second sentence of the first paragraph.
Subsection: **Revision:**	818.07 Preservative Treatment. First paragraph, replace all references to "AWPA C14" with "AWPA U1, Section A".

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Subsection: **Revision:**	834.14 Lighting Poles. Replace the first sentence with the following: Lighting pole design shall be in accordance with loading and allowable stress requirements of the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims, with the exception of the following: The Cabinet will waive the requirement stated in the first sentence of Section 5.14.6.2 – Reinforced Holes and Cutouts for high mast poles (only). The minimum diameter at the base of the pole shall be 22 inches for high mast poles (only).
Subsection **Revision:**	834.14.03 High Mast Poles. Remove the second and fourth sentence from the first paragraph.
Subsection **Revision:**	834.14.03 High Mast Poles. Replace the third paragraph with the following: Provide calculations and drawings that are stamped by a Professional Engineer licensed in the Commonwealth of Kentucky.
Subsection: **Revision:**	834.14.03 High Mast Poles. Replace paragraph six with the following: Provide a pole section that conforms to ASTM A 595 grade A with a minimum yield strength of 55 KSI or ASTM A 572 with a minimum yield strength of 55 KSI. Use tubes that are round or 16 sided with a four inch corner radius, have a constant linear taper of .144 in/ft and contain only one longitudinal seam weld. Circumferential welded tube butt splices and laminated tubes are not permitted. Provide pole sections that are telescopically slip fit assembled in the field to facilitate inspection of interior surface welds and the protective coating. The minimum length of the telescopic slip splices shall be 1.5 times the inside diameter of the exposed end of the female section. Use longitudinal seam welds as commended in Section 5.15 of the AASHTO 2013 Specifications. The thickness of the transverse base shall not be less than 2 inches. Plates shall be integrally welded to the tubes with a telescopic welded joint or a full penetration groove weld with backup bar.The handhole cover shall be removable from the handhole frame. One the frame side opposite the hinge, provide a mechanism on the handhole cover/frame to place the Department's standard padlock as specified in Section 834.25. The handhole frame shall have two stainless studs installed opposite the hinge to secure the handhole cover to the frame which includes providing stainless steel wing nuts and washers. The handhole cover shall be manufactured from 0.25 inch thick galvanized steel (ASTM A 153) and have a neoprene rubber gasket that is permanently secured to the handhole frame to insure weather-tight protection. The hinge shall be manufactured from 7-guage stainless steel to provide adjustability to insure weather-tight fit for the cover. The minimum clear distance between the transverse plate and the bottom opening of the handhole shall not be less than the diameter of the bottom tube of the pole but needs to be at least 15 inches. Provide products that are hot-dip galvanized to the requirements of either ASTM A123 (fabricated products) or ASTM A 153 (hardware items).
Subsection: **Revision:**	834.16 ANCHOR BOLTS. Insert the following sentence at the beginning of the paragraph: The anchor bolt design shall follow the NCHRP Report 494 Section 2.4 and NCHRP 469 Appendix A Specifications.

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Subsection:	834.17.01 Conventional.
Revision:	Add the following sentence after the second sentence: Provide a waterproof sticker mounted on the bottom of the housing that is legible from the ground and indicates the wattage of the fixture by providing the first two numbers of the wattage.
Subsection:	834.21.01 Waterproof Enclosures.
Revision:	Replace the last five sentences in the second paragraph with the following sentences: Provide a cabinet door with a louvered air vent, filter-retaining brackets and an easy to clean metal filter. Provide a cabinet door that is keyed with a factory installed standard no. 2 corbin traffic control key. Provide a light fixture with switch and bulb. Use a 120-volt fixture and utilize a L.E.D. bulb (equivalent to 60 watts minimum). Fixture shall be situated at or near the top of the cabinet and illuminate the contents of the cabinet. Provide a 120 VAC GFI duplex receptacle in the enclosure with a separate 20 amp breaker.
Subsection:	835.07 Traffic Poles.
Revision:	Replace the first sentence of the first paragraph with the following: Pole diameter and wall thickness shall be calculated in accordance with the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims.
Subsection:	835.07 Traffic Poles.
Revision:	*Replace the first sentence of the fourth paragraph with the following: Ensure transverse plates have a thickness ≥ 2 inches. *Add the following sentence to the end of the fourth paragraph: The bottom pole diameter shall not be less than 16.25 inches.
Subsection:	835.07 Traffic Poles.
Revision:	Replace the third sentence of the fifth paragraph with the following: For anchor bolt design, pole forces shall be positioned in such a manner to maximize the force on any individual anchor bolt regardless of the actual anchor bolt orientation with the pole.
Subsection:	835.07 Traffic Poles.
Revision:	Replace the first and second sentence of the sixth paragraph with the following: The pole handhole shall be 25 inches by 6.5 inches. The handhole cover shall be removable from the handhole frame. On the frame side opposite the hinge, provide a mechanism on the handhole cover/frame to place the Department's standard padlock as specified in Section 834.25. The handhole frame shall have two stainless studs installed opposite the hinge to secure the handhole cover to the frame which includes providing stainless steel wing nuts and washers. The handhole cover shall be manufactured from 0.25 inch thick galvanized steel (ASTM 153) and have a neoprene rubber gasket that is permanently secured to the handhole frame to insure weather-tight protection. The hinge shall be manufactured from 7 gauge stainless steel to provide adjustability to insure a weather-tight fit for the cover. The minimum clear distance between the transverse plate and the bottom opening of the handhole shall not be less than the diameter of the bottom tube but needs to be at least 12 inches.

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Subsection:	835.07 Traffic Poles.
Revision:	*Replace the first sentence of the last paragraph with the following: Provide calculations and drawings that are stamped by a Professional Engineer licensed in the Commonwealth of Kentucky. *Replace the third sentence of the last paragraph with the following: All tables referenced in 835.07 are found in the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims.
Subsection:	835.07.01 Steel Strain Poles.
Revision:	Replace the second sentence of the second paragraph with the following: The detailed analysis shall be certified by a Professional Engineer licensed in the Commonwealth of Kentucky.
Subsection:	835.07.01 Steel Strain Poles.
Revision:	Replace number 7. after the second paragraph with the following: 7. Fatigue calculations should be shown for all fatigue related connections. Provide the corresponding detail, stress category and example from table 11.9.3.1-1.
Subsection:	835.07.02 Mast Arm Poles.
Revision:	Replace the second sentence of the fourth paragraph with the following: The detailed analysis shall be certified by a Professional Engineer licensed in the Commonwealth of Kentucky.
Subsection:	835.07.02 Mast Arm Poles.
Revision:	Replace number 7) after the fourth paragraph with the following: 7) Fatigue calculations should be shown for all fatigue related connections. Provide the corresponding detail, stress category and example from table 11.9.3.1-1.
Subsection:	835.07.03 Anchor Bolts.
Revision:	Add the following to the end of the paragraph: There shall be two steel templates (one can be used for the headed part of the anchor bolt when designed in this manner) provided per pole. Templates shall be contained within a 26.5 inch diameter. All templates shall be fully galvanized (ASTM A 153).
Subsection:	835.16.05 Optical Units.
Revision:	Replace the 3rd paragraph with the following: The list of certified products can be found on the following website: http://www.intertek.com.
Subsection:	835.19.01 Pedestrian Detector Body.
Revision:	Replace the first sentence with the following: Provide a four holed pole mounted aluminum rectangular housing that is compatible with the pedestrian detector.
Subsection:	843.01.01 Geotextile Fabric.
Table:	TYPE I FABRIC GEOTEXTILES FOR SLOPE PROTECTION AND CHANNEL LINING
Revision:	Add the following to the chart:

Property	Minimum Value[(1)]	Test Method
CBR Puncture (lbs)	494	ASTM D6241
Permittivity (1/s)	0.7	ASTM D4491

Supplemental Specifications to the
Standard Specifications for Road and Bridge Construction, 2012 Edition
Effective with the July 31, 2015 Letting

Subsection: 843.01.01 Geotextile Fabric.
Table: TYPE II FABRIC GEOTEXTILES FOR UNDERDRAINS
Revision: Add the following to the chart:

Property	Minimum Value[1]	Test Method
CBR Puncture (lbs)	210	ASTM D6241
Permittivity (1/s)	0.5	ASTM D4491

Subsection: 843.01.01 Geotextile Fabric.
Table: TYPE III FABRIC GEOTEXTILES FOR SUBGRADE OR EMBANKMENT STABILIZATION
Revision: Add the following to the chart:

Property	Minimum Value[1]	Test Method
CBR Puncture (lbs)	370	ASTM D6241
Permittivity (1/s)	0.05	ASTM D4491

Subsection: 843.01.01 Geotextile Fabric.
Table: TYPE IV FABRIC GEOTEXTILES FOR EMBANKMENT DRAINAGE BLANKETS AND PAVEMENT EDGE DRAINS
Revision: Add the following to the chart:

Property	Minimum Value[1]	Test Method
CBR Puncture (lbs)	309	ASTM D6241
Permittivity (1/s)	0.5	ASTM D4491

Subsection: 843.01.01 Geotextile Fabric.
Table: TYPE V HIGH STRENGTH GEOTEXTILE FABRIC
Revision: Make the following changes to the chart:

Property	Minimum Value[1]	Test Method
CBR Puncture (lbs)	618	ASTM D6241
Apparent Opening Size	U.S. #40[3]	ASTM D4751

[3] Maximum average roll value.

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SPECIAL NOTE FOR PORTABLE CHANGEABLE MESSAGE SIGNS

This Special Note will apply when indicated on the plans or in the proposal.

1.0 DESCRIPTION. Furnish, install, operate, and maintain variable message signs at the locations shown on the plans or designated by the Engineer. Remove and retain possession of variable message signs when they are no longer needed on the project.

2.0 MATERIALS.

2.1 General. Use LED Variable Message Signs Class I, II, or III, as appropriate, from the Department's List of Approved Materials.

Unclassified signs may be submitted for approval by the Engineer. The Engineer may require a daytime and nighttime demonstration. The Engineer will make a final decision within 30 days after all required information is received.

2.2 Sign and Controls. All signs must:

1) Provide 3-line messages with each line being 8 characters long and at least 18 inches tall. Each character comprises 35 pixels.
2) Provide at least 40 preprogrammed messages available for use at any time. Provide for quick and easy change of the displayed message; editing of the message; and additions of new messages.
3) Provide a controller consisting of:
   a) Keyboard or keypad.
   b) Readout that mimics the actual sign display. (When LCD or LCD type readout is used, include backlighting and heating or otherwise arrange for viewing in cold temperatures.)
   c) Non-volatile memory or suitable memory with battery backup for storing pre-programmed messages.
   d) Logic circuitry to control the sequence of messages and flash rate.
4) Provide a serial interface that is capable of supporting complete remote control ability through land line and cellular telephone operation. Include communication software capable of immediately updating the message, providing complete sign status, and allowing message library queries and updates.
5) Allow a single person easily to raise the sign to a satisfactory height above the pavement during use, and lower the sign during travel.
6) Be Highway Orange on all exterior surfaces of the trailer, supports, and controller cabinet.
7) Provide operation in ambient temperatures from -30 to + 120 degrees Fahrenheit during snow, rain and other inclement weather.
8) Provide the driver board as part of a module. All modules are interchangeable, and have plug and socket arrangements for disconnection and reconnection. Printed circuit boards associated with driver boards have a conformable coating to protect against moisture.
9) Provide a sign case sealed against rain, snow, dust, insects, etc. The lens is UV stabilized clear plastic (polycarbonate, acrylic, or other approved material) angled to prevent glare.
10) Provide a flat black UV protected coating on the sign hardware, character PCB, and appropriate lens areas.
11) Provide a photocell control to provide automatic dimming.

1I

12) Allow an on-off flashing sequence at an adjustable rate.
13) Provide a sight to aim the message.
14) Provide a LED display color of approximately 590 nm amber.
15) Provide a controller that is password protected.
16) Provide a security device that prevents unauthorized individuals from accessing the controller.
17) Provide the following 3-line messages preprogrammed and available for use when the sign unit begins operation:

/KEEP/RIGHT/⇒⇒⇒/
/KEEP/LEFT/⇐⇐⇐/
/LOOSE/GRAVEL/AHEAD/
/RD WORK/NEXT/**MILES/
/TWO WAY/TRAFFIC/AHEAD/
/PAINT/CREW/AHEAD/
/REDUCE/SPEED/**MPH/
/BRIDGE/WORK/***0 FT/
/MAX/SPEED/**MPH/
/SURVEY/PARTY/AHEAD/
/MIN/SPEED/**MPH/
/ICY/BRIDGE/AHEAD/ /ONE LANE/BRIDGE/AHEAD/
/ROUGH/ROAD/AHEAD/
/MERGING/TRAFFIC/AHEAD/
/NEXT/***/MILES/
/HEAVY/TRAFFIC/AHEAD/
/SPEED/LIMIT/**MPH/
/BUMP/AHEAD/
/TWO/WAY/TRAFFIC/

*Insert numerals as directed by the Engineer.
Add other messages during the project when required by the Engineer.

2.3 Power.

1) Design solar panels to yield 10 percent or greater additional charge than sign consumption. Provide direct wiring for operation of the sign or arrow board from an external power source to provide energy backup for 21 days without sunlight and an on-board system charger with the ability to recharge completely discharged batteries in 24 hours.

3.0 CONSTRUCTION. Furnish and operate the variable message signs as designated on the plans or by the Engineer. Ensure the bottom of the message panel is a minimum of 7 feet above the roadway in urban areas and 5 feet above in rural areas when operating. Use Class I, II, or III signs on roads with a speed limit less than 55 mph. Use Class I or II signs on roads with speed limits 55 mph or greater.

Maintain the sign in proper working order, including repair of any damage done by others, until completion of the project. When the sign becomes inoperative, immediately repair or replace the sign. Repetitive problems with the same unit will be cause for rejection and replacement.

Use only project related messages and messages directed by the Engineer, unnecessary messages lessen the impact of the sign. Ensure the message is displayed in either one or 2 phases with each phase having no more than 3 lines of text. When no message is needed, but it is necessary to know if the sign is operable, flash only a pixel.

When the sign is not needed, move it outside the clear zone or where the Engineer directs. Variable Message Signs are the property of the Contractor and shall be removed from the project when no longer needed. The Department will not assume ownership of these signs.

4.0 MEASUREMENT. The final quantity of Variable Message Sign will be

1I

the actual number of individual signs acceptably furnished and operated during the project. The Department will not measure signs replaced due to damage or rejection.

5.0 PAYMENT. The Department will pay for the Variable Message Signs at the unit price each. The Department will not pay for signs replaced due to damage or rejection. Payment is full compensation for furnishing all materials, labor, equipment, and service necessary to, operate, move, repair, and maintain or replace the variable message signs. The Department will make payment for the completed and accepted quantities under the following:

Code	Pay Item	Pay Unit
02671	Portable Changeable Message Sign	Each

Effective June 15, 2012

2012 STANDARD DRAWINGS THAT APPLY
FD52 063 1006 002-003

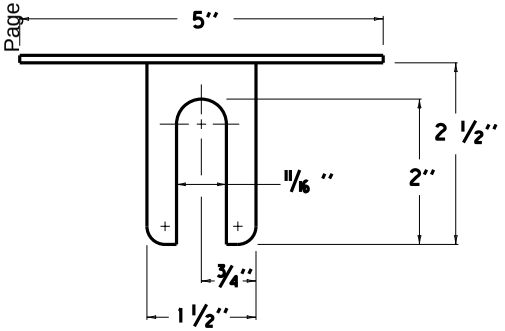
COUNTY OF	ITEM NO.	SHEET NO.

NOTES

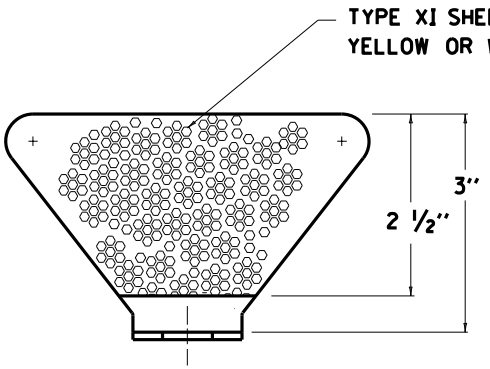
1. THE DELINEATOR'S SHAPE AND DIMENSIONS ARE SHOWN FOR ILLUSTRATION PURPOSES ONLY. TYPES OF DELINEATORS PERMITTED SHALL BE FROM THE LIST OF APPROVED MATERIALS.
2. DELINEATOR SHALL BE MEASURED AND PAID FOR AT THE CONTRACT UNIT PRICE EACH AND SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR ONE COMPLETE INSTALLATION.
3.

CODE	PAY ITEM	PAY UNIT
1982	DELINEATOR FOR GUARDRAIL - MONO DIRECTIONAL WHITE	EACH
1983	DELINEATOR FOR GUARDRAIL - MONO DIRECTIONAL YELLOW	EACH
1987	DELINEATOR FOR GUARDRAIL - BI-DIRECTIONAL WHITE	EACH

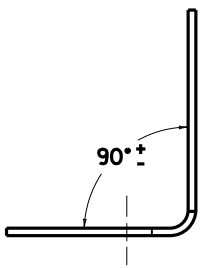
4. GUARDRAIL DELINEATORS SHALL BE REQUIRED ON ALL GUARDRAIL.
5. DELINEATORS SHALL BE MANUFACTURED FROM 12 GA. GALVANIZED STEEL.
6. DIMENSIONS SHOWN ARE APPROXIMATE AND ARE SUBJECT TO MANUFACTURER'S TOLERANCES.
7. WHEN CONCRETE BARRIERS EXTEND ACROSS BRIDGE STRUCTURES IN LIEU OF STEEL BEAM GUARDRAIL, DELINEATORS SHALL BE INSTALLED AT SAME VERTICAL ALIGNMENT AS ON THE GUARDRAIL, AND DELINEATORS SHALL COMPLY WITH CURRENT SEPIA DRAWING 004.
8. DELINEATORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.



PLAN VIEW

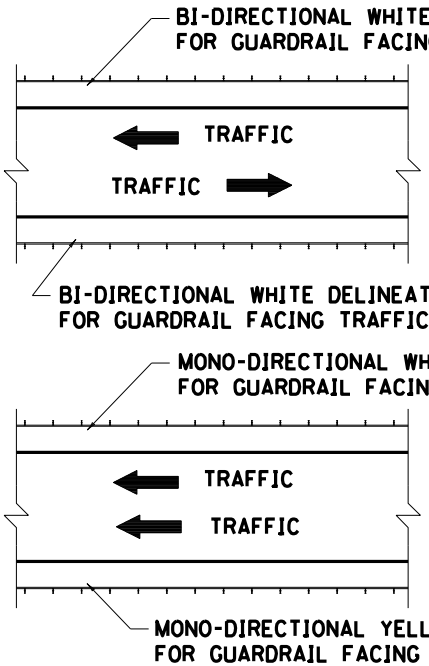


FRONT VIEW

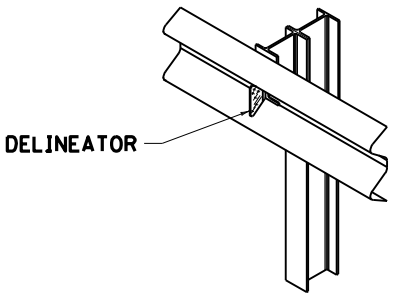


SIDE VIEW

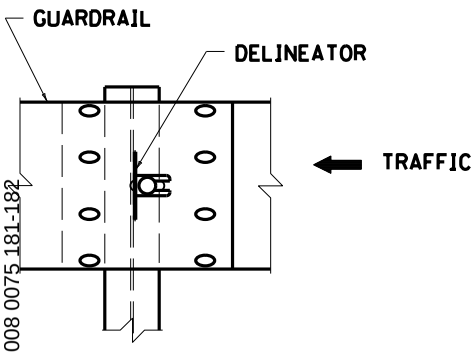
NOTE: DIMENSIONS SHOWN ARE FOR ONE VERSION OF A WEB-MOUNTED GUARDRAIL DELINEATOR. DELINEATORS WITH ALTERNATE DIMENSIONS MAY BE CONSIDERED FOR INCLUSION ON THE APPROVED PRODUCTS LIST.



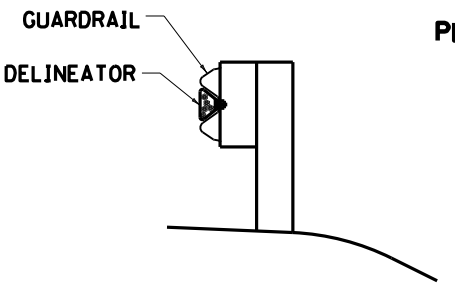
PLACEMENT OF DELINEATORS FOR GUARDRAIL



ISOMETRIC VIEW



FRONT VIEW



SIDE VIEW

APPROXIMATE DELINEATOR SPACING	
TANGENT	100'
CURVE	50'

SPACING SHOULD BE ADJUSTED IN CURVES SO THAT SEVERAL DELINEATORS ARE ALWAYS SIMULTANEOUSLY VISIBLE TO THE ROAD USER.

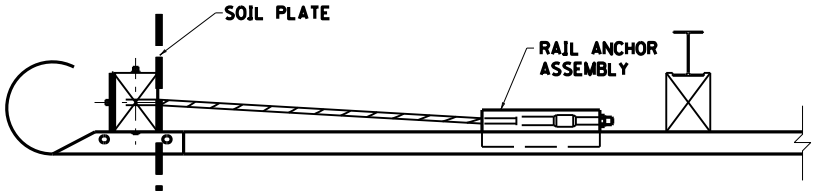
KENTUCKY DEPARTMENT OF HIGHWAYS

DELINEATORS FOR GUARDRAIL

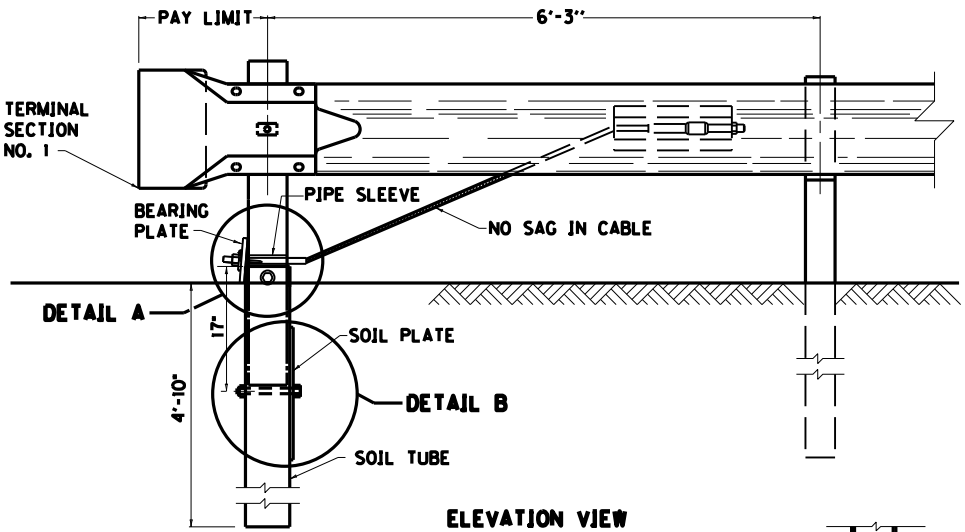
SUBMITTED Jeff Jasper 6-15-2012
DIRECTOR DIVISION OF DESIGN — DATE

002

COUNTY OF	ITEM NO.	SHEET NO.



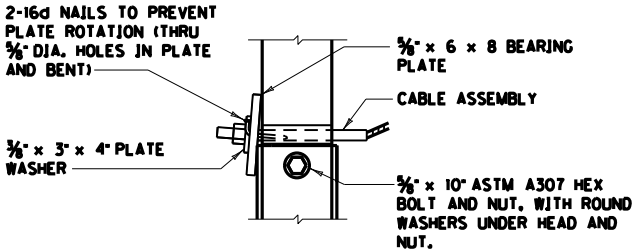
PLAN VIEW



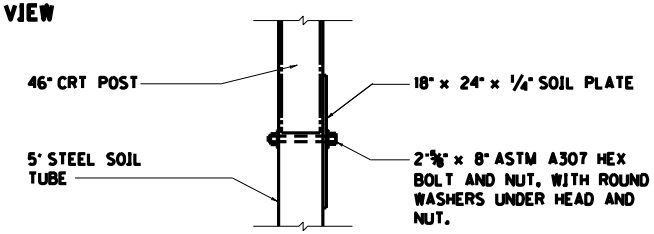
ELEVATION VIEW

NOTES

1. GUARDRAIL END TREATMENT TYPE 2A SHALL BE TO THE PAY LIMITS AS DETAILED. THE CONTRACT UNIT BID IS EACH AND SHALL INCLUDE A TERMINAL SECTION NO. 1, RAIL ANCHOR ASSEMBLY, CABLE ANCHOR ASSEMBLY AND ALL OTHER INCIDENTALS NECESSARY FOR A COMPLETE INSTALLATION AS DETAILED.
2. IN THE EVENT SOLID ROCK IS ENCOUNTERED, THE SOIL TUBE MAY BE SHORTENED, PROVIDED IT EXTENDS INTO THE SOLID GROUND A MINIMUM OF 3 FEET.
3. INSTALL BEARING PLATE SO THAT THE "V" OPENING IS AT THE TOP.



DETAIL A



DETAIL B

USE WITH CUR. STD. DWGS.
RBR-010, RBI-001,
RBI-002, RBI-003

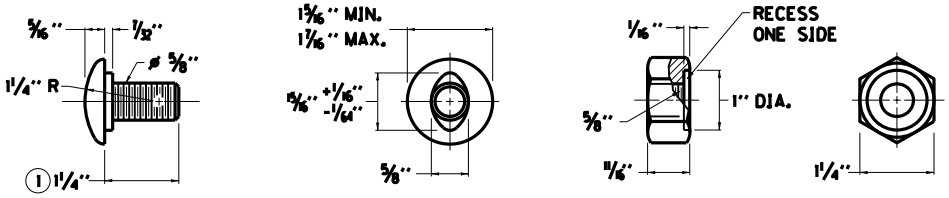
KENTUCKY
DEPARTMENT OF HIGHWAYS

GUARDRAIL
END TREATMENT
TYPE 2A

SUBMITTED _____ 6-15-2012
TEBM DIVISION OF DESIGN — DATE

007

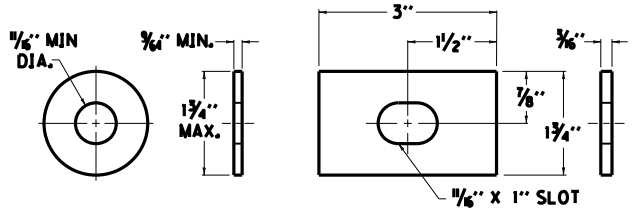
COUNTY OF	ITEM NO.	SHEET NO.



5/8" BUTTON HEAD BOLT AND RECESSED NUT

NOTES

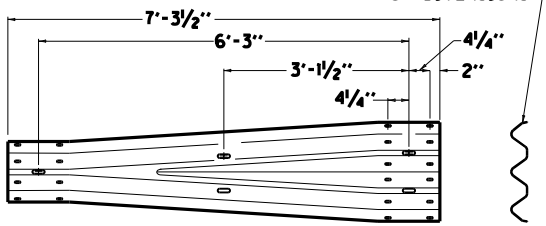
1. RAIL BOLT SIMILAR EXCEPT LENGTH.
2. THE THRIE BEAM TO "W" BEAM CONNECTOR SHALL COMPLY WITH AASHTO M-180 CLASS A, TYPE 2 EXCEPT WHERE IN CONFLICT WITH THIS DETAIL.



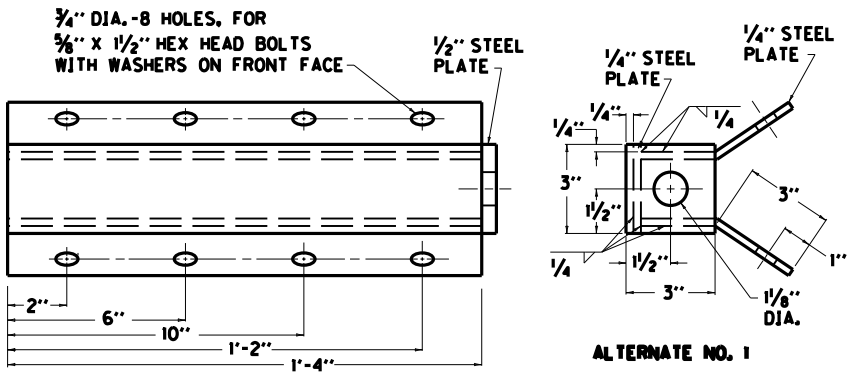
ROUND WASHER AND RECTANGULAR PLATE WASHER

SEE CUR. STD. DWG. RBR-001 FOR DIMENSIONS

SEE CUR. STD. DWG. RBR-100 FOR DIMENSIONS



THRIE BEAM TO "W" BEAM CONNECTOR (2)



ALTERNATE NO. 1

ALTERNATE NO. 2

RAIL ANCHOR ASSEMBLY

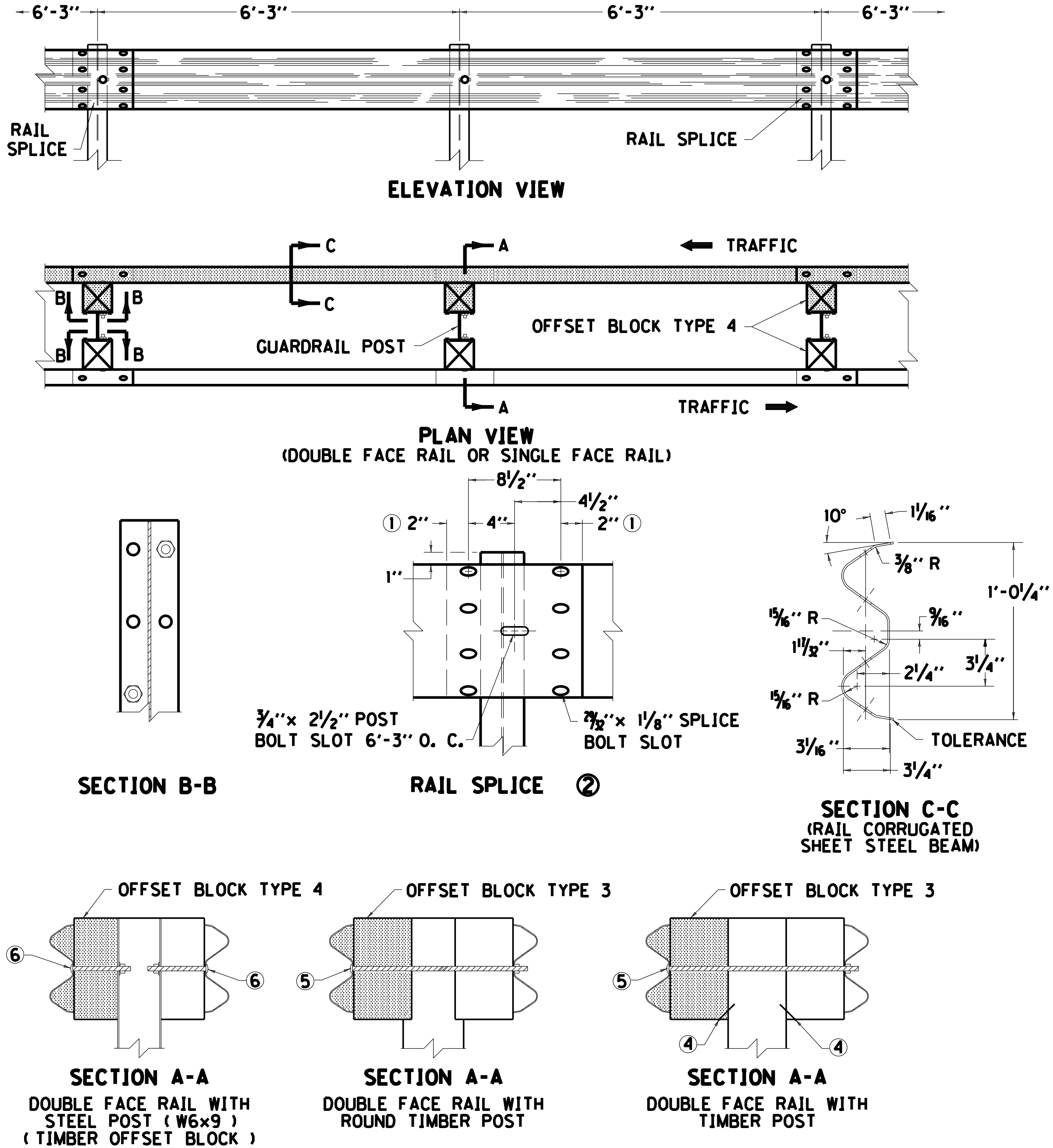
KENTUCKY DEPARTMENT OF HIGHWAYS

GUARDRAIL COMPONENTS

SUBMITTED _____ TEBM DIVISION OF DESIGN — 6-15-2012 DATE

008

MicroStation v8.11.7.180 | E-SHEET NAME: | USER: Jeff.Lail | DATE PLOTTED: December 11, 2012 | FILE NAME: C:\PWWORK\JEFF.LAIL\D0512631\SEPIA 012.DGN



NOTES

THE CONTRACT UNIT PRICE BID SHALL BE:
GUARDRAIL-STEEL W BEAM-SINGLE FACE - LIN. FT.
OR
GUARDRAIL-STEEL W BEAM-DOUBLE FACE - LIN. FT.

DIMENSIONAL TOLERANCES NOT SHOWN OR IMPLIED ARE INTENDED TO BE THOSE CONSISTENT WITH THE PROPER FUNCTIONING OF THE PART, INCLUDING ITS APPEARANCE AND ACCEPTED MANUFACTURING PRACTICES.

THE RAIL ELEMENT SHALL COMPLY WITH AASHTO M-180 -CLASS A, TYPE II.

ALL LAPS SHALL BE PLACED IN THE DIRECTION OF TRAFFIC FLOW.

1. TOLERANCE + 1¼", -¼"
2. 8 -⅝"x 1¼" LONG BUTTON HEAD BOLTS AND HEX HEAD RECESS NUTS REQUIRED FOR EACH RAIL SPLICE.
3. LENGTH EQUALS POST AND BLOCK WIDTH PLUS: 2" FOR BOLT OR 2¼" FOR THREADED ROD.
4. GALVANIZED STEEL 10d COMMON COATED NAIL (DRIVE NAIL AT THE TOP OR BOTTOM CENTER OF BLOCK AND POST AFTER BOLT IS INSTALLED).
5. ⅝"x ③ STEEL THREADED ROD AND TWO (2) HEX HEAD NUTS OR ⅝"x ③ BUTTON OR HEX HEAD BOLT AND HEX HEAD NUT.
6. ⅝"x8" BUTTON HEAD BOLT, HEX HEAD RECESS NUT AND ONE ⅝" ROUND WASHER (TYP.). BOLT SHALL HAVE A MINIMUM THREAD LENGTH OF 2".

(shaded) REQUIRED FOR DOUBLE RAIL

7. BOTH 12'-6" AND 25' LENGTHS OF "W" BEAM GUARDRAIL SECTIONS WILL BE PERMITTED UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

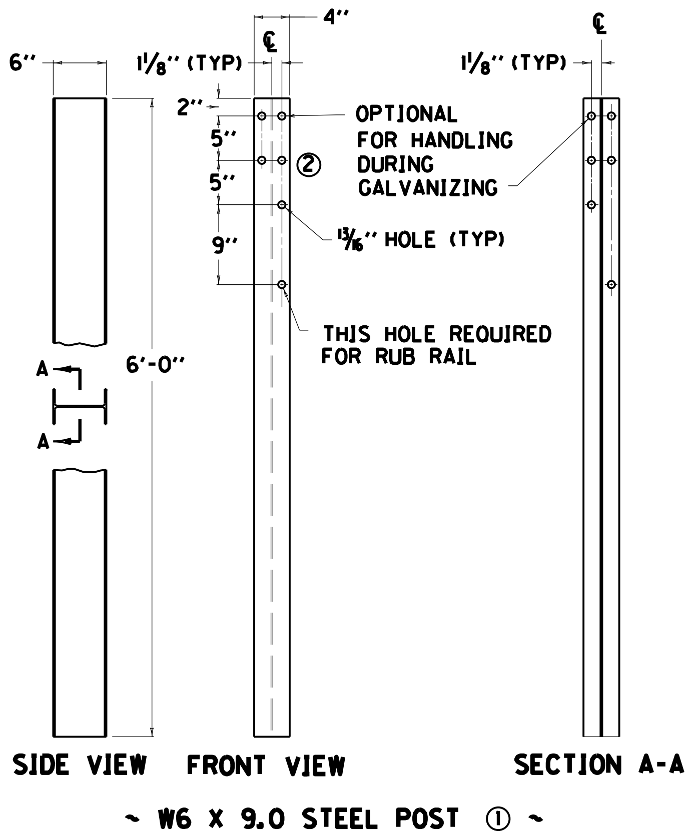
COUNTY OF	ITEM NO.	SHEET NO.

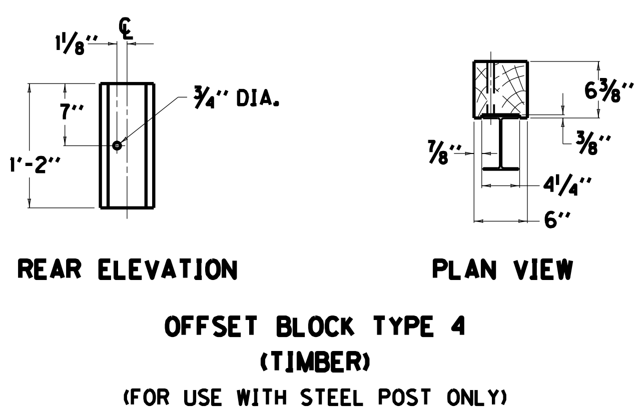
KENTUCKY
DEPARTMENT OF HIGHWAYS

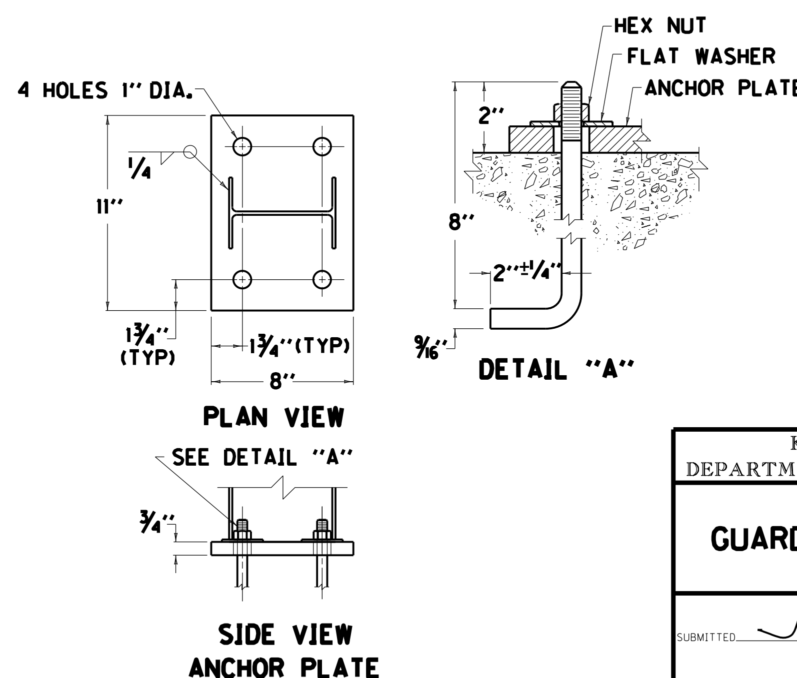
STEEL BEAM GUARDRAIL ("W" BEAM)

SUBMITTED ____ DIRECTOR DIVISION OF DESIGN
12-11-12
DATE
012

USER: jeff.lail
DATE PLOTTED: May 8, 2013
FILE NAME: C:\PWWORK\JEFF.LAIL\D0512631\SEPIA 013.DGN







~ NOTES ~

① W6 X 8.5 IS AN ACCEPTABLE ALTERNATE.
② THESE HOLES REQUIRED FOR ATTACHING RAIL.

COUNTY OF	ITEM NO.	SHEET NO.

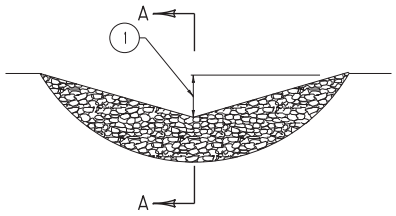
KENTUCKY
DEPARTMENT OF HIGHWAYS

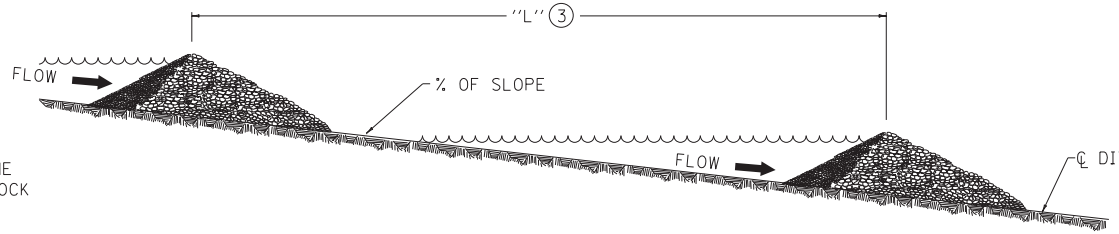
GUARDRAIL POSTS

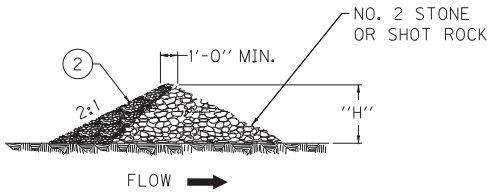
SUBMITTED [signature] 9-27-13
DATE

013

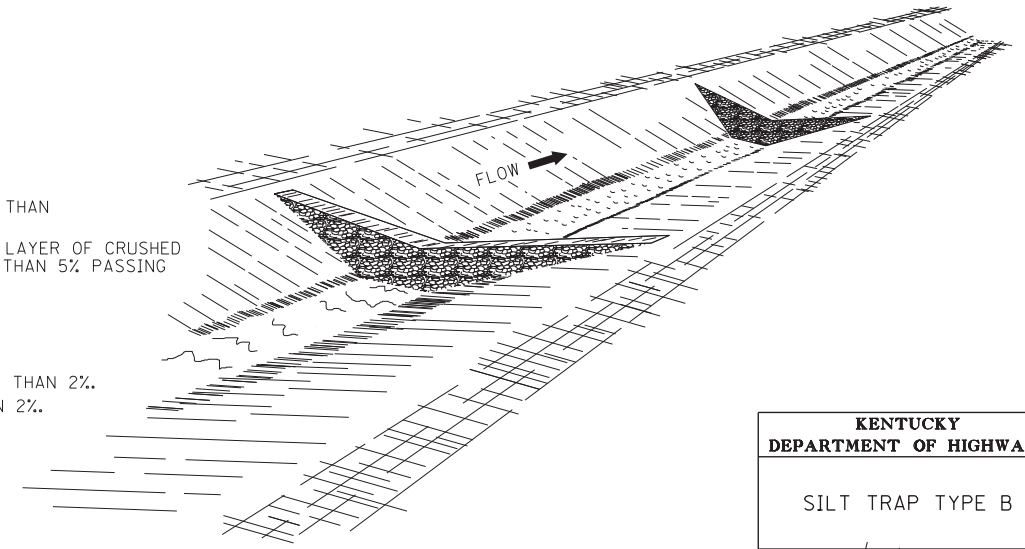
COUNTY OF	ITEM NO.	SHEET NO.







SECTION "A~A"



~NOTES~

BID ITEM AND UNIT TO BID:

CODE	PAY ITEM	PAY UNIT
2704	SILT TRAP TYPE B	EACH
2707	CLEAN SILT TRAP TYPE B	EACH

1. MIDDLE OF SILT TRAP SHALL BE A MINIMUM OF 1'-0" LOWER THAN SIDES SO FLOW WILL NOT BYPASS TRAP OR ERODE BANKS.
2. UPSTREAM FACE OF SILT TRAP SHALL BE A FOUR INCH MIN. LAYER OF CRUSHED AGGREGATE HAVING 100% PASSING A 3" SIEVE AND NO MORE THAN 5% PASSING A NO. 8 SIEVE (SEE SECTION "A-A").
3. "L" = $\frac{\text{"H"}}{\text{SLOPE OF DITCH}}$
4. SPACE SILT TRAPS AT LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
5. SILT TRAP TYPE B SHALL BE USED ON ALL SLOPES GREATER THAN 2%.
6. SILT TRAP TYPE B MAY BE USED ON ALL SLOPES LESS THAN 2%.

MicroStation v8.11.7.180 | E-SHEET NAME: | USER: Jeff.Lail DATE PLOTTED: July 19, 2013 | FILE NAME: C:\PWWORK\JEFF.LAIL\D0512631\SEPIA 016.DGN

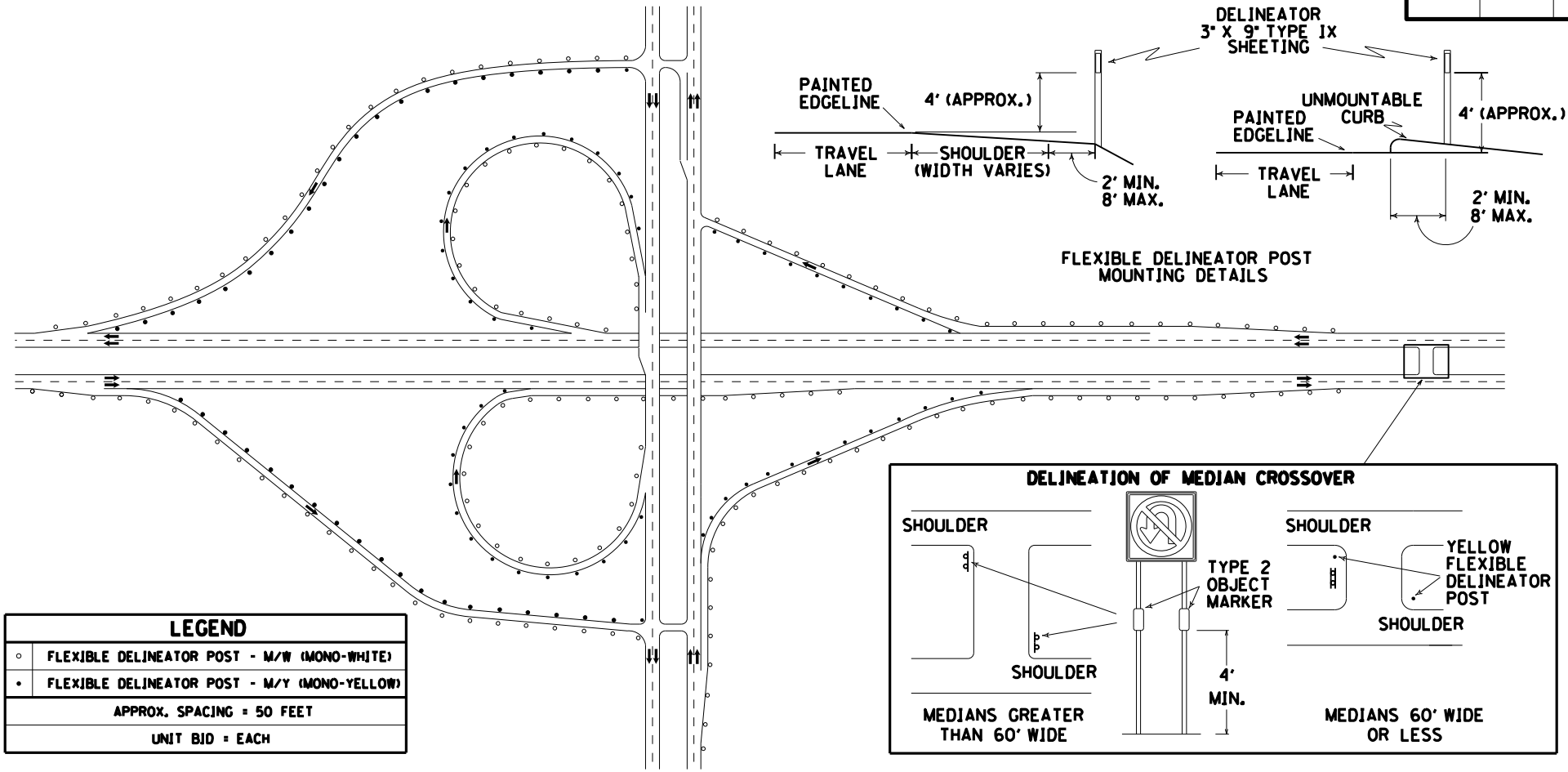
KENTUCKY DEPARTMENT OF HIGHWAYS

SILT TRAP TYPE B

SUBMITTED Jeff Draper 7-18-13
DATE

016

COUNTY OF	ITEM NO.	SHEET NO.



LEGEND	
○	FLEXIBLE DELINEATOR POST - W/W (MONO-WHITE)
•	FLEXIBLE DELINEATOR POST - W/Y (MONO-YELLOW)
APPROX. SPACING = 50 FEET	
UNIT BID = EACH	

GENERAL NOTES

1. DELINEATORS SHALL BE FROM THE LIST OF APPROVED MATERIALS AND SHALL BE IN ACCORDANCE WITH SECTION 838 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.
2. DELINEATORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
3. THE DELINEATOR POST AND RETROREFLECTIVE SHEETING SHALL BE THE SAME COLOR AND SHALL MATCH THE COLOR OF THE EDGELINES THEY SUPPLEMENT.
4. DELINEATORS SHOULD BE PROVIDED ON BOTH SIDES OF INTERCHANGE RAMPS. DELINEATORS SHOULD BE ERECTED AT 50 FOOT INTERVALS ALONG RAMPS AND ACCELERATION AND DECELERATION LANES ON THE MAINLINE AND CROSSROAD.
5. DELINEATORS SHOULD BE PLACED AT A CONSTANT DISTANCE FROM THE ROADWAY EDGE. WHEN AN OBSTRUCTION EXISTS NEAR THE PAVEMENT EDGE, THE LINE OF DELINEATORS SHOULD BE TRANSITIONED TO THE INSIDE OF THE OBSTRUCTION OR TO THE BARRIER DELINEATION IF THE OBSTRUCTION IS GUARDRAIL OR BARRIER WALL. SUCH TRANSITIONS SHOULD BEGIN APPROXIMATELY 200 FEET IN ADVANCE OF THE OBSTRUCTION/BARRIER.
6. DELINEATORS SHOULD BE INSTALLED AT AN APPROXIMATE RIGHT ANGLE TO APPROACHING TRAFFIC.
7. DELINEATORS MAY BE DISCONTINUED ALONG SECTIONS WITH BARRIER WALL OR GUARDRAIL DELINEATION.

DRAWING NOT TO SCALE

KENTUCKY
DEPARTMENT OF HIGHWAYS

FLEXIBLE DELINEATOR POST ARRANGEMENTS FOR INTERCHANGE RAMPS AND CROSSOVERS

SUBMITTED R. Allen Wolfe 8-29-13
DATE

019

BOONE COUNTY
FD04 SPP 008 0075 181182

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

LABOR AND WAGE REQUIREMENTS
APPLICABLE TO OTHER THAN FEDERAL-AID SYSTEM PROJECTS

I. APPLICATION

1. These contract provisions shall apply to all work performed on the contract by the contractor with his own organization and with the assistance of workmen under his immediate superintendence and to all work performed on the contract by piecework, station work or by subcontract. The contractor's organization shall be construed to include only workmen employed and paid directly by the contractor and equipment owned or rented by him, with or without operators.

2. The contractor shall insert in each of his subcontracts all of the stipulations contained in these Required Provisions and such other stipulations as may be required.

3. A breach of any of the stipulations contained in these Required Provisions may be grounds for termination of the contract.

II. NONDISCRIMINATION OF EMPLOYEES

AN ACT OF THE KENTUCKY
GENERAL ASSEMBLY TO PREVENT
DISCRIMINATION IN EMPLOYMENT
KRS CHAPTER 344
EFFECTIVE JUNE 16, 1972

The contract on this project, in accordance with KRS Chapter 344, provides that during the performance of this contract, the contractor agrees as follows:

1. The contractor shall not fail or refuse to hire, or shall not discharge any individual, or otherwise discriminate against an individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, national origin, sex, disability or age (between forty and seventy); or limit, segregate, or classify his employees in any way which would deprive or tend to deprive an individual of employment opportunities or otherwise adversely affect his status as an employee, because of such individual's race, color, religion, national origin, sex, disability or age (between forty and seventy). The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The contractor shall not print or publish or cause to be printed or published a notice or advertisement relating to employment by such an employer or membership in or any classification or referral for employment by the employment agency, indicating any preference, limitation, specification, or discrimination, based on race, color, religion, national origin, sex, disability or age (between forty and seventy), except that such notice or advertisement may indicate a preference, limitation, or specification based on religion, or national origin when religion, or national origin is a bona fide occupational qualification for employment.

3. If the contractor is in control of apprenticeship or other training or retraining, including on-the-job training programs, he shall not discriminate against an individual because of his race, color, religion, national origin, sex, disability or age (between forty and seventy), in admission to, or employment in any program established to provide apprenticeship or other training.

4. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. The contractor will take such action with respect to any subcontract or purchase order as the administrating agency may direct as a means of enforcing such provisions, including sanctions for non-compliance.

III. PAYMENT OF PREDETERMINED MINIMUM WAGES

1. These special provisions are supplemented elsewhere in the contract by special provisions which set forth certain predetermined minimum wage rates. The contractor shall pay not less than those rates.

2. The minimum wage determination schedule shall be posted by the contractor, in a manner prescribed by the Department of Highways, at the site of the work in prominent places where it can be easily seen by the workers.

IV. STATEMENTS AND PAYROLLS

1. All contractors and subcontractors affected by the terms of KRS 337.505 to 337.550 shall keep full and accurate payroll records covering all disbursements of wages to their employees to whom they are required to pay not less than the prevailing rate of wages. Payrolls and basic records relating thereto will be maintained during the course of the work and preserved for a period of one (1) year from the date of completion of this contract.

2. The payroll records shall contain the name, address and social security number of each employee, his correct classification, rate of pay, daily and weekly number of hours worked, itemized deductions made and actual wages paid.

3. The contractor shall make his daily records available at the project site for inspection by the State Department of Highways contracting office or his authorized representative.

Periodic investigations shall be conducted as required to assure compliance with the labor provisions of the contract. Interrogation of employees and officials of the contractor shall be permitted during working hours.

Aggrieved workers, Highway Managers, Assistant District Engineers, Resident Engineers and Project Engineers shall report all complaints and violations to the Division of Contract Procurement.

The contractor shall be notified in writing of apparent violations. The contractor may correct the reported violations and notify the Department of Highways of the action taken or may request an informal hearing. The request for hearing shall be in writing within ten (10) days after receipt of the notice of the reported violation. The contractor may submit

records and information which will aid in determining the true facts relating to the reported violations.

Any person or organization aggrieved by the action taken or the findings established as a result of an informal hearing by the Division of Contract Procurement may request a formal hearing.

4. The wages of labor shall be paid in legal tender of the United States, except that this condition will be considered satisfied if payment is made by a negotiable check, on a solvent bank, which may be cashed readily by the employee in the local community for the full amount, without discount or collection charges of any kind. Where checks are used for payments, the contractor shall make all necessary arrangements for them to be cashed and shall give information regarding such arrangements.

5. No fee of any kind shall be asked or accepted by the contractor or any of his agents from any person as a condition of employment on the project.

6. No laborers shall be charged for any tools used in performing their respective duties except for reasonably avoidable loss or damage thereto.

7. Every employee on the work covered by this contract shall be permitted to lodge, board, and trade where and with whom he elects and neither the contractor nor his agents, nor his employees shall directly or indirectly require as a condition of employment that an employee shall lodge, board or trade at a particular place or with a particular person.

8. Every employee on the project covered by this contract shall be an employee of either the prime contractor or an approved subcontractor.

9. No charge shall be made for any transportation furnished by the contractor or his agents to any person employed on the work.

10. No individual shall be employed as a laborer or mechanic on this contract except on a wage basis, but this shall not be construed to prohibit the rental of teams, trucks or other equipment from individuals.

No Covered employee may be employed on the work except in accordance with the classification set forth in the schedule mentioned above; provided, however, that in the event additional classifications are required, application shall be made by the contractor to the Department of Highways and (1) the Department shall request appropriate classifications and rates from the proper agency, or (2) if there is urgent need for additional classification to avoid undue delay in the work, the contractor may employ such workmen at rates deemed comparable to rates established for similar classifications provided he has made written application through the Department of Highways, addressed to the proper agency, for the supplemental rates. The contractor shall retroactively adjust, upon receipt of the supplemental rates schedule, the wages of any employee paid less than the established rate and may adjust the wages of any employee overpaid.

11. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any laborer or mechanic in any work-week in which he is employed on such work, to work in excess of eight hours in any calendar day or in excess of forty hours in such work-week unless such laborer or mechanic receives compensation at a rate not less than one and one half times his basic rate of pay for all hours worked in excess of eight hours in any calendar day or in excess of forty hours in such work-week. A laborer, workman or mechanic and an employer may enter into a written agreement or a collective bargaining agreement to work more than eight (8) hours a calendar day but not more than ten (10) hours a calendar day for the straight time hourly rate. This agreement shall be in writing and shall be executed prior to the employee working in excess of eight (8) hours, but not more than ten (10) hours, in any one (1) calendar day.

12. Payments to the contractor may be suspended or withheld due to failure of the contractor to pay any laborer or mechanic employed or working on the site of the work, all or part of the wages required under the terms of the contract. The Department may suspend or withhold payments only after the contractor has been given written notice of the alleged violation and the contractor has failed to comply with the wage determination of the Department of Highways.

13. Contractors and subcontractors shall comply with the sections of Kentucky Revised Statutes, Chapter 337 relating to contracts for Public Works.

Revised 2-16-95

EXECUTIVE BRANCH CODE OF ETHICS

In the 1992 regular legislative session, the General Assembly passed and Governor Brereton Jones signed Senate Bill 63 (codified as KRS 11A), the Executive Branch Code of Ethics, which states, in part:

KRS 11A.040 (6) provides:

No present or former public servant shall, within six (6) months of following termination of his office or employment, accept employment, compensation or other economic benefit from any person or business that contracts or does business with the state in matters in which he was directly involved during his tenure. This provision shall not prohibit an individual from returning to the same business, firm, occupation, or profession in which he was involved prior to taking office or beginning his term of employment, provided that, for a period of six (6) months, he personally refrains from working on any matter in which he was directly involved in state government. This subsection shall not prohibit the performance of ministerial functions, including, but not limited to, filing tax returns, filing applications for permits or licenses, or filing incorporation papers.

KRS 11A.040 (8) states:

A former public servant shall not represent a person in a matter before a state agency in which the former public servant was directly involved, for a period of one (1) year after the latter of:

a) The date of leaving office or termination of employment; or
b) The date the term of office expires to which the public servant was elected.

This law is intended to promote public confidence in the integrity of state government and to declare as public policy the idea that state employees should view their work as a public trust and not as a way to obtain private benefits.

If you have worked for the executive branch of state government within the past six months, you may be subject to the law's prohibitions. The law's applicability may be different if you hold elected office or are contemplating representation of another before a state agency.

Also, if you are affiliated with a firm which does business with the state and which employs former state executive-branch employees, you should be aware that the law may apply to them.

In case of doubt, the law permits you to request an advisory opinion from the Executive Branch Ethics Commission, Room 136, Capitol Building, 700 Capitol Avenue, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Kentucky Equal Employment Opportunity Act of 1978

The requirements of the Kentucky Equal Employment Opportunity Act of 1978 (KRS 45.560-45.640) shall apply to this Contract. The apparent low Bidder will be required to submit EEO forms to the Division of Construction Procurement, which will then forward to the Finance and Administration Cabinet for review and approval. No award will become effective until all forms are submitted and EEO/CC has certified compliance. The required EEO forms are as follows:

- EEO-1: Employer Information Report
- Affidavit of Intent to Comply
- Employee Data Sheet
- Subcontractor Report

These forms are available on the Finance and Administration's web page under ***Vendor Information, Standard Attachments and General Terms*** at the following address: **https://www.eProcurement.ky.gov**.

Bidders currently certified as being in compliance by the Finance and Administration Cabinet may submit a copy of their approval letter in lieu of the referenced EEO forms.

For questions or assistance please contact the Finance and Administration Cabinet by email at **finance.contractcompliance@ky.gov** or by phone at 502-564-2874.

General Decision Number: KY150101 09/18/2015 KY101

Superseded General Decision Number: KY20140101

State: Kentucky

Construction Type: Highway

Counties: Boone, Campbell, Kenton and Pendleton Counties in Kentucky.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Executive Order (EO) 13658 establishes an hourly minimum wage of $10.10 for 2015 that applies to all contracts subject to the Davis-Bacon Act for which the solicitation is issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.10 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/02/2015
1	01/23/2015
2	05/01/2015
3	06/05/2015
4	06/19/2015
5	09/11/2015
6	09/18/2015

BRKY0002-005 06/01/2014

	Rates	Fringes
BRICKLAYER	$ 26.50	11.17

BROH0001-005 06/01/2008

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 25.75	8.60

CARP0698-001 05/01/2014

BOONE, CAMPBELL, KENTON & PENDLETON COUNTIES:

	Rates	Fringes
Carpenter & Piledrivermen	$ 27.27	14.59

Diver	$ 40.58	9.69

ELEC0212-007 06/01/2015

	Rates	Fringes
ELECTRICIAN	$ 27.03	17.02

ELEC0212-013 12/01/2014

	Rates	Fringes
Sound & Communication Technician	$ 22.75	10.08

* ENGI0018-013 05/01/2015

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1	$ 33.34	14.25
GROUP 2	$ 33.22	14.25
GROUP 3	$ 32.18	14.25
GROUP 4	$ 31.00	14.24
GROUP 5	$ 25.54	14.25
GROUP 6	$ 33.59	14.25
GROUP 7	$ 33.84	14.25

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Air Compressor on Steel Erection; Barrier Moving Machine; Boiler Operator on Compressor or Generator when mounted on a Rig; Cableway; Combination Concrete Mixer & Tower; Concrete Plant (over 4 yd. Capacity); Concrete Pump; Crane (All Types, Including Boom Truck, Cherry Picker); Crane-Compact, Track or Rubber over 4,000 lbs. capacity; Cranes-Self Erecting, Stationary, Track or Truck (All Configurations); Derrick; Dragline; Dredge (Dipper, Clam or Suction); Elevating Grader or Euclid Loader; Floating Equipment (All Types); Gradall; Helicopter Crew (Operator-Hoist or Winch); Hoe (all types); Hoisting Engine on Shaft or Tunnel Work; Hydraulic Gantry (Lifting System); Industrial-Type Tractor; Jet Engine Dryer (D8 or D9) Diesel Tractor; Locomotive (Standard Gauge); Maintenance Operator Class A; Mixer, Paving (Single or Double Drum); Mucking Machine; Multiple Scraper; Piledriving Machine (All Types); Power Shovel; Prentice Loader; Quad 9 (Double Pusher); Rail Tamper (with auto lifting & aligning device); Refrigerating Machine (Freezer Operation); Rotary Drill, on Caisson work; Rough Terrain Fork Lift with Winch/Hoist; Side-Boom; Slip-Form Paver; Tower Derrick; Tree Shredder; Trench Machine (Over 24" wide); Truck Mounted Concrete Pump; Tug Boat; Tunnel Machine and/or Mining Machine; & Wheel Excavator

GROUP 2 - Asphalt Paver; Automatic Subgrader Machine, Self-Propelled (CMI Type); Bobcat Type and/or Skid Steer Loader with Hoe Attachment Greater than 7,000 lbs.; Boring Machine More than 48"; Bulldozer; Endloader; Hydro Milling Machine; Horizontal Directional Drill (over 500,000 ft.

lbs. thrust); Kolman-type Loader (production type-Dirt); Lead Greaseman; Lighting & Traffic Signal Installation Equipment (includes all groups or classifications); Material Transfer Equipment (Shuttle Buggy) Asphalt; Pettibone-Rail Equipment; Power Grader; Power Scraper; Push Cat; Rotomill (all), Grinders & Planers of All types; Trench Machine (24" wide & under); & Vermeer type Concrete Saw

GROUP 3 - A-Frame; Air Compressor on Tunnel Work (low pressure); Asphalt Plant Engineer; Bobcat-type and/or Skid Steer Loader with or without Attachments; Highway Drills (all types); Locomotive (narrow gauge); Material Hoist/Elevator; Mixer, Concrete (more than one bag capacity); Mixer, one bag capacity (Side Loader); Power Boiler (Over 15 lbs. Pressure) Pump Operator installing & operating Well Points; Pump (4" & over discharge); Roller, Asphalt; Rotovator (lime soil stabilizer); Switch & Tie Tampers (without lifting & aligning device); Utility Operator (Small equipment); & Welding Machines

GROUP 4 - Backfiller; Ballast Re-locator; Bars, Joint & Mesh Installing Machine; Batch Plant; Boring Machine Operator (48" or less); Bull Floats; Burlap & Curing Machine; Concrete Plant (capacity 4 yd. & under); Concrete Saw (Multiple); Conveyor (Highway); Crusher; Deckhand; Farm-type Tractor with attachments (highway) except Masonry); Finishing Machine; Fireperson, Floating Equipment (all types); Fork Lift (highway); Form Trencher; Hydro Hammer; Hydro Seeder; Pavement Breaker; Plant Mixer; Post Driver; Post Hole Digger (Power Auger); Power Brush Burner; Power Form Handling Equipment; Road Widening Trencher; Roller (Brick, Grade & Macadam); Self-Propelled Power Spreader; Self-Propelled Power Subgrader; Steam Fireperson; Tractor (Pulling Sheepfoot, Roller or Grader); & Vibratory Compactor with Integral Power

GROUP 5 - Compressor (Portable, Sewer, Heavy & Highway); Drum Fireperson (Asphalt); Generator; Masonry Fork Lift; Inboard-Outboard Motor Boat Launch; Masonry Fork Lift; Oil Heater (asphalt plant); Oiler; Power Driven Heater; Power Sweeper & Scrubber; Pump (under 4" discharge); Signalperson; Tire Repairperson; & VAC/ALLS

GROUP 6 - Master Mechanic & Boom from 150 to 180

GROUP 7 - Boom from 180 and over

IRON0044-008 06/01/2015

	Rates	Fringes
Ironworkers:		
Fence Erector	$ 23.76	19.15
Structural	$ 26.40	19.15

IRON0372-004 06/15/2015

	Rates	Fringes

IRONWORKER, REINFORCING.....$ 27.00 19.00

LABO0189-004 07/01/2014

PENDLETON COUNTY:

	Rates	Fringes
LABORER		
GROUP 1	$ 21.80	11.96
GROUP 2	$ 22.05	11.96
GROUP 3	$ 22.10	11.96
GROUP 4	$ 22.70	11.96

LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; Side Rail Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free Air); Water Blaster

GROUP 4 - Caisson Worker (Free Air); Cement Finisher; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Levels A & B; Miner & Driller (Free Air); Tunnel Blaster; & Tunnel Mucker (Free Air); Directional & Horizontal Boring; Air Track Driller (All Types); Powderman & Blaster; Troxler & Concrete Tester if Laborer is Utilized

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LABO0265-009 05/01/2015

BOONE, CAMPBELL & KENTON COUNTIES:

	Rates	Fringes
LABORER		
GROUP 1	$ 28.72	9.85
GROUP 2	$ 28.89	9.85
GROUP 3	$ 29.22	9.85
GROUP 4	$ 29.67	9.85

LABORER CLASSIFICATIONS

GROUP 1 - Asphalt Laborer; Carpenter Tender; Concrete Curing Applicator; Dump Man (Batch Truck); Guardrail and Fence Installer; Joint Setter; Laborer (Construction); Landscape Laborer; Highway Lighting Worker; Signalization Worker; Mesh Handlers & Placer; Right-of-way Laborer; Riprap Laborer & Grouter; Scaffold Erector; Seal Coating; Surface Treatment or Road Mix Laborer; Sign Installer; Slurry Seal; Utility Man; Bridge Man; Handyman; Waterproofing Laborer; Flagperson; Hazardous Waste (level D); Diver Tender; Zone Person & Traffic Control

GROUP 2 - Skid Steer; Asphalt Raker; Concrete Puddler; Kettle Man (Pipeline); Machine Driven Tools (Gas, Electric, Air); Mason Tender; Brick Paver; Mortar Mixer; Power Buggy or Power Wheelbarrow; Sheeting & Shoring Man; Surface Grinder Man; Plastic Fusing Machine Operator; Pug Mill Operator; & Vacuum Devices (wet or dry); Rodding Machine Operator; Diver; Screwman or Paver; Screed Person; Water Blast, Hand Held Wand; Pumps 4" & Under (Gas, Air or Electric) & Hazardous Waste (level C); Air Track and Wagon Drill; Bottom Person; Cofferdam (below 25 ft. deep); Concrete Saw Person; Cutting with Burning Torch; Form Setter; Hand Spiker (Railroad); Pipelayer; Tunnel Laborer (without air) & Caisson; Underground Person (working in Sewer and Waterline, Cleaning, Repairing & Reconditioning); Sandblaster Nozzle Person; & Hazardous Waste (level B)

GROUP 3 - Blaster; Mucker; Powder Person; Top Lander; Wrencher (Mechanical Joints & Utility Pipeline); Yarner; Hazardous Waste (level A); Concrete Specialist; Concrete Crew in Tunnels (With Air-pressurized - $1.00 premium); Curb Setter & Cutter; Grade Checker; Utility Pipeline Tapper; Waterline; and Caulker

GROUP 4 - Miner; & Gunite Nozzle Person

TUNNEL LABORER WITH AIR-PRESSURIZED ADD $1.00 TO BASE RATE

SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.

PAIN0012-016 05/01/2015

	Rates	Fringes
PAINTER		
Bridge	$ 24.39	9.06
Bridge Equipment Tender		

and Containment Builder	$ 20.73	9.06
Brush & Roller	$ 23.39	9.06
Sandblasting & Water Blasting	$ 24.14	9.06
Spray	$ 23.89	9.06

PLUM0392-008 06/01/2014

	Rates	Fringes
PLUMBER	$ 29.80	17.79

SUKY2010-161 02/05/1996

	Rates	Fringes
Truck drivers:		
GROUP 1	$ 15.85	4.60
GROUP 2	$ 16.29	4.60

TRUCK DRIVER CLASSIFICATIONS

GROUP 1 - Driver

GROUP 2 - Euclid Wagon; End Dump; Lowboy; Heavy Duty Equipment; Tractor-Trailer Combination; & Drag

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of

the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination

* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

Fringe benefit amounts are applicable for all hours worked except when otherwise noted.

These rates are listed pursuant to the Kentucky Determination No. CR-15-IV-HWY dated July 20, 2015.

No laborer, workman or mechanic shall be paid at a rate less than that of a Journeyman except those classified as bona fide apprentices.

Apprentices or trainees shall be permitted to work as such subject to Administrative Regulations adopted by the Commissioner of Workplace Standards. Copies of these regulations will be furnished upon request from any interested person.

Before using apprentices on the job the contractor shall present to the Contracting Officer written evidence of registration of such employees in a program of a State apprenticeship and training agency approved and recognized by the U. S. Bureau of Apprenticeship and Training. In the absence of such a State agency, the contractor shall submit evidence of approval and registration by the U. S. Bureau of Apprenticeship and Training.

The contractor shall submit to the Contracting Officer, written evidence of the established apprenticeship-journeyman ratios and wage rates in the project area, which will be the basis for establishing such ratios and rates for the project under the applicable contract provisions.

TO: EMPLOYERS/EMPLOYEES

PREVAILING WAGE SCHEDULE:

The wages indicated on this wage schedule are the least permitted to be paid for the occupations indicated. When an employee works in more than one classification, the employer must record the number of hours worked in each classification at the prescribed hourly base rate.

OVERTIME:

Overtime is to be paid after an employee works eight (8) hours a day or forty (40) hours a week, whichever gives the employee the greater wages. At least time and one-half the base rate is required for all overtime. A laborer, workman or mechanic and an employer may enter into a written agreement or a collective bargaining agreement to work more than eight (8) hours a calendar day but not more than ten (10) hours a calendar day for the straight time hourly rate. Wage violations or questions should be directed to the designated Engineer or the undersigned.

Director
Division of Construction Procurement
Frankfort, Kentucky 40622
502-564-3500

PART IV

INSURANCE

INSURANCE

The Contractor shall procure and maintain the following insurance in addition to the insurance required by law:

1) Commercial General Liability-Occurrence form – not less than $2,000,000 General aggregate, $2,000,000 Products & Completed Aggregate, $1,000,000 Personal & Advertising, $1,000,000 each occurrence.

2) Automobile Liability- $1,000,000 per accident

3) Employers Liability:

   a) $100,000 Each Accident Bodily Injury
   b) $500,000 Policy limit Bodily Injury by Disease
   c) $100,000 Each Employee Bodily Injury by Disease

4) The insurance required above must be evidenced by a Certificate of Insurance and this Certificate of Insurance must contain one of the following statements:
   a) "policy contains no deductible clauses."
   b) "policy contains _____ (amount) deductible property damage clause but company will pay claim and collect the deductible from the insured."

5) KENTUCKY WORKMEN'S COMPENSATION INSURANCE. The contractor shall furnish evidence of coverage of all his employees or give evidence of self-insurance by submitting a copy of a certificate issued by the Workmen's Compensation Board.

The cost of insurance is incidental to all contract items. All subcontractors must meet the same minimum insurance requirements.

PART V

BID ITEMS

PROPOSAL BID ITEMS

152300

Report Date 10/27/15

Section: 0001 - JPC PAVMENT

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00001		DGA BASE	2,000.00	TON		$	
0020	00078		CRUSHED AGGREGATE SIZE NO 2 LIMESTONE	75.00	TON		$	
0030	00100		ASPHALT SEAL AGGREGATE	11.00	TON		$	
0040	00103		ASPHALT SEAL COAT	1.33	TON		$	
0050	01001		PERFORATED PIPE-6 IN	20.00	LF		$	
0060	01011		NON-PERFORATED PIPE-6 IN	20.00	LF		$	
0070	01025		PERF PIPE HEADWALL TY 2-6 IN	2.00	EACH		$	
0080	01982		DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	25.00	EACH		$	
0090	02014		BARRICADE-TYPE III	10.00	EACH		$	
0100	02071		JPC PAVEMENT-11 IN	4,175.00	SQYD		$	
0110	02072		JPC PAVEMENT-11 IN SHLD WITH LOAD TRANSFER ASSEMBLIES	1,390.00	SQYD		$	
0120	02091		REMOVE PAVEMENT PCC, ASPHALT, AND/OR COMPOSITE	5,565.00	SQYD		$	
0130	02351		GUARDRAIL-STEEL W BEAM-S FACE WITH 7 FOOT POSTS	1,150.00	LF		$	
0140	02369		GUARDRAIL END TREATMENT TYPE 2A	1.00	EACH		$	
0150	02381		REMOVE GUARDRAIL	1,150.00	LF		$	
0160	02391		GUARDRAIL END TREATMENT TYPE 4A	1.00	EACH		$	
0170	02562		TEMPORARY SIGNS POST MOUNTED	500.00	SQFT		$	
0180	02562		TEMPORARY SIGNS MOUNTED ON EXISTING OVERHEAD TRUSSES	500.00	SQFT		$	
0190	02599		FABRIC-GEOTEXTILE TYPE IV	350.00	SQYD		$	
0200	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		$	
0210	02653		LANE CLOSURE	1.00	EACH		$	
0220	02671		PORTABLE CHANGEABLE MESSAGE SIGN	5.00	EACH		$	
0230	02679		POROUS UNDERDRAIN	20.00	LF		$	
0240	02726		STAKING	1.00	LS		$	
0250	02775		ARROW PANEL	5.00	EACH		$	
0260	04792		CONDUIT-1 IN	70.00	LF		$	
0270	04811		ELECTRICAL JUNCTION BOX TYPE B	1.00	EACH		$	
0280	04820		TRENCHING AND BACKFILLING	20.00	LF		$	
0290	04850		CABLE-NO. 14/1 PAIR	70.00	LF		$	
0300	04894		PREFORMED LOOP/LEAD-IN	70.00	LF		$	
0310	05950		EROSION CONTROL BLANKET	2,300.00	SQYD		$	
0320	06401		FLEXIBLE DELINEATOR POST-M/W	3.00	EACH		$	
0330	06404		FLEXIBLE DELINEATOR POST-M/Y	25.00	EACH		$	
0340	06515		PAVE STRIPING-PERM PAINT-6 IN	3,000.00	LF		$	
0350	06549		PAVE STRIPING-TEMP REM TAPE-B 8 INCH WIDTH	500.00	LF		$	
0360	06550		PAVE STRIPING-TEMP REM TAPE-W 6 INCH WIDTH	2,000.00	LF		$	
0370	06568		PAVE MARKING-THERMO STOP BAR-24IN	60.00	LF		$	
0380	06574		PAVE MARKING-THERMO CURV ARROW	6.00	EACH		$	
0390	06575		PAVE MARKING-THERMO COMB ARROW	3.00	EACH		$	
0400	06576		PAVE MARKING-THERMO ONLY	2.00	EACH		$	

PROPOSAL BID ITEMS

152300

Report Date 10/27/15

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0410	06585		PAVEMENT MARKER TY IVA-MW TEMP	100.00	EACH		$	
0420	10020NS		FUEL ADJUSTMENT	1,600.00	DOLL	$1.00	$	$1,600.00
0430	10201NC		COST PLUS TIME RAMP CLOSURE (BID AS HOURS)	4,000.00	DOLL		$	
0440	20257NC		SITE PREPARATION	1.00	LS		$	
0450	20411ED		LAW ENFORCEMENT OFFICER	50.00	HOUR		$	
0460	20453ES835		PREFORMED QUADRAPOLE LOOPS	306.00	LF		$	
0470	21415ND		EROSION CONTROL	1.00	LS		$	
0480	23625EC		PAVE MARK THERMO-6 IN W CAT TRAXX	20.00	LF		$	
0490	24489EC		INLAID PAVEMENT MARKER BI-DIRECTIONAL WHITE/RED	15.00	EACH		$	
0500	24489EC		INLAID PAVEMENT MARKER BI-DERCTIONAL YELLOW/RED	30.00	EACH		$	

Section: 0002 - DEMOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0510	02569		DEMOBILIZATION	1.00	LS		$	